

Rural Sociology

VOL. I

SEPTEMBER, 1936

No. 3

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Real and Apparent Exceptions to the Uniformity of a Lower Natural Increase of the Upper Classes

Corrado Gini

THE DIFFERENTIAL natural increase of the social classes—more rapid in the lower classes, slower, if not actually negative, in the upper classes—constitutes a basic phenomenon of our social organization. The social metabolism derived from it assures the renewal of the directing classes and characterizes, by its varying intensity, the successive phases of the evolution of populations.¹ Thence follow consequences of fundamental importance in the anthropological, economic, social, and political fields, but it is not our intention here to pause over such consequences for they have already been repeatedly explained.² On the contrary, we intend to consider briefly some of the real or apparent

Corrado Gini, one of the world's leading authorities on demography, is professor of statistics and sociology at the University of Rome. The bulk of this article is translated from a paper presented at the International Congress of Sociology at Brussels, August 25-29, 1935. Cf. *La sezione italiana dell'Istituto Internazionale di Sociologia al Congresso di Bruxelles*, 25-29 Agosto, 1935 (Rome: Comitato italiano per lo studio dei problemi della popolazione, 1935), XIII, 166-83. All of section 4 and substantial parts of sections 5 and 13 represent additions made by the author. *Rural Sociology* and the author are greatly indebted to Dr. Robert K. Merton for the translation.

¹ Cf., in particular, my writings: "Il diverso accrescimento delle classi sociali e la concentrazione della ricchezza," *Giornale degli Economisti*, January, 1909, especially paragraph XII; *I fattori demografici dell'evoluzione delle nazioni* (Rome: Biblioteca del 'Metron,' 1912), especially pp. 34 ff.; *L'ammontare e la composizione della ricchezza delle nazioni* (Rome: Biblioteca del 'Metron,' 1914), p. 429; "The cyclical Rise and Fall of Populations," *Population* (Chicago: University of Chicago Press, 1930), pp. 19 ff.; *Nascita, evoluzione e morte delle nazioni* (Rome: Biblioteca del 'Metron,' 1930), pp. 23 ff.; *Le basi scientifiche della politica della popolazione* (Rome: R. Università, Istituto di Statistica, 1931), pp. 255-56, 258-63; *Prime linee di patologia economica* (Milan: Giuffrè, 1935), pp. 124-25.

² Cf., "Il diverso accrescimento," paragraphs XI-XIV; *I fattori demografici*, pp. 30 ff.; *L'ammontare e la composizione*, pp. 429-31; *Le basi scientifiche*, pp. 245-63.

exceptions presented by our society to the aforesaid uniformity of differential increase of the social classes, as well as the existence or non-existence of this uniformity in forms of social organization which differ from ours.

2. As is well known, the differential natural increase depends upon a lower birth-rate among the upper classes which is not fully compensated for by their lower death-rate. It is necessary to ascertain the causes of both of these phenomena in order to account for exceptions to the rule.

The lower birth-rate of the upper classes depends upon their lower marriage-rate, higher age at marriage (which leads to a longer duration of the generation), and a smaller average number of children per marriage. Such phenomena can, in turn, be reduced to social or external factors and to biological or internal factors.³

The social factors depend upon the advantages of celibacy, or of a restricted family, accruing to the individual in our society. Two consequences follow from this: first, that those who are less inclined to matrimony, or are less fertile, have a greater probability of rising in the social scale. Second, that those who themselves wish to ascend, to have their children ascend, or at least to secure for their children the social position which they themselves have attained, tend to limit the number of their children.⁴ Preventive checks on the increase of population derived from the limitation of physical subsistence act less upon

³ Cf. "The Cyclical Rise and Fall," pp. 21-24; *Nascita, evoluzione e morte*, pp. 24-26; *Prime linee di patologia economica*, pp. 105-6, 109-10; *Il sesso dal punto di vista statistico* (Rome: Biblioteca del 'Metron,' 1908), pp. 455-60; "Contributi statistici ai problemi dell'Eugenica," in *Rivista Italiana di Sociologia*, May-June, 1912, pp. 380-83; published also in English under the title, "The contributions of demography to eugenics," *Problems in Eugenics*, II (London: The Eugenics Education Society, 1913).

⁴ Cf. *I fattori demografici*, p. 42; "The Cyclical Rise and Fall," pp. 23-25; *Nascita, evoluzione e morte*, pp. 24-25. See also the paper presented by Professor V. Castrilli to this same Congress on "L'origine sociale degli studenti, contributo allo studio del ricambio sociale," pp. 12-14, which provides interesting data in this connection. It appears from these data relative to Germany that the families from which the students come are smaller when they belong to the lower classes. In Italy, on the contrary, according to an inquiry completed at the University of Padua, the average number of brothers among students coming from the lower classes is not smaller, but even greater, than among students coming from the upper classes.

the propertied classes because of their greater wealth. However, the preventative checks derived from the action of what may be called psychological subsistence assume greater importance among these classes.⁵

It would seem that the biological factors depend upon the fact that the stocks from which the population results present an evolution through internal forces; an evolution in which, however, not all stocks proceed synchronously. The upper classes are constituted in greater proportion of the more precocious stocks; and, since the evolution is characterized by a progressive reduction of the reproductive powers of single stocks and, at least up to a certain point, by a progress of personal qualities of their components, the upper classes, as a result, are individually superior, either from the intellectual and moral or from the physical viewpoint, but inferior from the standpoint of reproductive powers. Only in the last evolutive stage does the progress of personal qualities give place, always or occasionally, to decadence. Those stocks of the upper classes which, because of their slight reproductivity become almost extinct, then become inferior also from the personal standpoint. This may become the situation of all the upper classes whenever the renewal of their blood with elements coming from the lower classes is impeded.

The theory of evolution through internal forces thus leads us to expect that the upper classes, considered *en masse*, should become more robust, and for that reason, should be endowed with a lower death-rate than the lower classes, save for the senescent stocks among which mortality should often tend to be greater. The action of social selection appears to tend toward the same result, inasmuch as the more robust stocks have, under equal conditions, a greater probability of giving rise to individuals destined to triumph in social competition. From these, then, would the upper classes be principally recruited. On the other hand, the less intense natural selection to which the more wealthy classes are subject exercises a contrary effect and this, being prolonged for many generations, may also become prevalent. Generally, however,

⁵ Cf., in particular, "Le leggi di evoluzione della popolazione," *Economia*, December, 1924; *Patologia economica*, pp. 5-6; *Le basi scientifiche*, pp. 212-15.

the biological factors increasing the death-rate of the upper classes may, in their totality, be regarded as of secondary significance as compared with the environmental factors—such as better nourishment, a more comfortable existence, a more effective prevention, and a more energetic defense against pathogenic agents—which by themselves may suffice to determine a lower death-rate of the upper classes. In fact, except in extreme cases, environmental factors seem to prevail over the unfavorable action of less intense natural selection and of biological senescence.

3. Inexact methods of calculation may give rise to the impression that exceptions to the uniformity of differential increase of the social classes occur where in reality they do not.

This error arises whenever, as is frequently the case,⁶ the judgment of the comparative increase of the social classes is based on the average number of children per marriage or on the average number of children surviving until adulthood. Certainly such an average number is an important element in such comparisons, but it is not the only one. In addition to the average number of children per marriage, or of children who attain adulthood, it is necessary to take account of the probability of marriage for children attaining adulthood and of the duration of the generation. Each of these factors may in turn be subdivided into several others. One may establish the following classification:

- A. Average number per marriage of children who attain adulthood
 - a) average number of children per fertile marriage
 - b) frequency of sterile marriages
 - c) percentage of offspring who attain adulthood
- B. Probability of marriage for those who attain adulthood
 - a) law of survival of adults
 - b) probability of marriage at each age
- C. Average duration of a generation
 - a) average age at marriage
 - b) average interval between marriage and the birth of a child

⁶ Cf. in this connection, "The Cyclical Rise and Fall," pp. 35-36; *Nascita, evoluzione e morte*, note on pp. 33-34. For another example of a greater number of children in wealthy than in poor classes, cf. C. C. Zimmerman and P. C. Vaidhyakara: "A Demographic Study of 8 Oriental Villages Yet Largely Untouched by Western Culture," *Metron*, XI (1934) esp. pp. 193-8. See also P. A. Sorokin: *Contemporary Sociological Theories* (New York: Harper and Brothers, 1928), pp. 549 ff.

Of these, the factors a and b in category A; the factor b in category B; and the factor a in category C tend, as a rule, to cause a greater increase of the lower classes. On the contrary, the factor c in category A; the factor a in category B; and the factor b in category C tend, as a rule, to cause a greater increase of the upper classes. In each of the three categories A, B, and C, however, the factors favorable to the greater increase of the lower classes generally prevail so that for the most part the groups of factors A, B, and C are all three favorable to a greater increase of the lower classes.

It may occur, however, as has been recognized by some authors, that sometimes the average number of children (A, a) or, even more so, the average number of children attaining adulthood (A), is greater in the upper classes. But this does not necessarily imply that the increase of the upper classes is greater, since the probability of an adult not marrying (B) and the duration of a generation (C) are, as a rule, higher for these classes. If, for example, the average number of children who attain adulthood is four for the upper classes and three for the lower classes, the difference would be offset by the probability of an adult marrying being 60 per cent among the upper classes and 80 per cent among the lower. Or, it could be compensated for by the duration of a generation being 33 years for the upper and 25 for the lower classes. Or, compensation could be effected by the probability of marriage for an adult being 70 per cent and the duration of a generation being 33 years among the upper classes, with the figures for the lower classes being 80 per cent and 28 years, respectively.

4. Other apparent exceptions to the uniformity of differential increase may arise from inexact methods, not of measuring the increase, but of distinguishing between the social classes.

This may be the case when the distinction between the social classes is based upon income. Income is, to be sure, a very important factor in social standing, but it depends also upon other circumstances which are not independent of the number of children, such as the length of the career of the individual, family allowances, and the energy exercised in occupational pursuits.

At the beginning of their careers, the members of the upper classes have, naturally, a lower income than later in their lives, and likewise they also have a smaller number of children, as their reproduction is not complete, indeed often has scarcely begun. Hence, it is hardly surprising if income statistics show a smaller average number of children for the people in the lowest-income categories. After a certain point, however, this circumstance ceases to have a decisive influence and then the average number of children decreases with the decrease in income. I have already presented data showing such tendencies for Germany, Denmark, and Norway.⁷ It is also to be expected that the said circumstance be much less important for the workers, who reach their maximum output and income at a very early age, than for the intellectual classes, whose training and career are much more prolonged.

In order to avoid the disturbing factor of the length of career it is necessary to classify individuals not only according to the amount of income but also according to age, a procedure which is not always practicable. I was able to eliminate the influence of age in the case of Norway, but even then the lower average number of children for the lowest income classes persisted, showing that other factors were involved.

Where employees receive a family allowance or grant which increases with the number of children, the total salary, other things being equal, is higher for the larger families. Consequently, other things being equal, the number of children is greater in families with higher salaries. When other circumstances act strongly in an opposite direction, it may well be that the effect of this circumstance is not apparent. But when a differential increase of the various social classes or of the various economic categories of the same class does not exist or is not pronounced, this effect may become prominent, giving the impression of a positive correlation between income and number of children. Family

⁷ Cf. *L'ammontare e la composizione*, pp. 464-6 and 670-4, and also my preface to the work of Dr. De Meo, "Distribuzione della ricchezza e composizione demografica in alcune città dell'Italia Meridionale alla metà del sec. XVIII," *Annali di Statistica*, Serie VI, XIX (1931).

allowances are adopted in many countries for public employees; in some, for employees in private enterprise as well; seldom, for manual laborers. So this circumstance, also, has a disturbing effect which is more serious for the intellectual than for the laboring classes.

In order to avoid this effect, it is necessary to classify employees, not according to their total salaries, but according to their base salary without considering family allowances.

Another circumstance, similar in its effects but of wider application and probably of more importance, derives from the influence that the number of children exercises upon the income of the family through the intensity of work of its members.

Where there are many children, it is more likely that some of them will contribute their earnings to the income of the family. Moreover, in spite of the heavier familial cares, the wife is perhaps more frequently obliged to engage in extra-household work.

In order to eliminate the disturbing influence of these factors, it is necessary to classify families according to the income of the head, without considering the supplementary contributions of the other members.

But even after such corrections, there still remains a disturbing factor. This results from the fact that, in order to enjoy the same economic and social conditions found among small families, the father of many children must receive a higher income. This is usually attained, at least in some measure, by practicing his profession more energetically or by being more industrious and diligent in his job (it has often been recognized by employers that fathers of the larger families are the best employees) or by doing some extra work.

It should be remarked that the disturbing influence of this factor as well is likely to be greater for the intellectual than for the laboring classes, because the work done by the latter is less elastic in respect to quantity and quality. Hence, the income of laborers is less apt to be increased by their greater energy and industry. Similarly, the dependence of the relative contribution to the total income by members of the family upon the sheer number of children seems to be more important

in the case of the intellectual than in that of the laboring classes, since among the latter it is the rule that, irrespective of the size of family, the wife and children work whenever possible.

This influence of the size of family upon income may provide an alternative explanation for the results of some researches discussed by Lorimer and Osborn.⁸ According to them, the farm families of 11 American states show a pronounced negative relationship between the number of children and value of the house, but no apparent relationship between the number of children and the total income, or between the number of children and amounts spent for advancement, personal items, or insurance. Social standing may be held to be represented by the condition of the house; it tends to be lower when the number of children is greater, while the total income remains constant.

It is also probable that, at least the last of the afore-mentioned circumstances (i.e., the greater energy and industry of fathers of large families) may be taken into consideration for a partial explanation of what has been called a reversal of the usual class differentials in intra-marital fertility. Interesting researches made in Stockholm and in Greater Oslo⁹ show that the average number of children does not decrease with the amount of income, but increases in Stockholm continuously, and in Oslo after an income of 5,000 to 7,000 kronen. The influence of age was eliminated through standardization. In Stockholm, at least, only the income of husbands was considered, and I am informed that in Norway no family allowance exists. The fertility of marriages in both cities is very low, the average being below two children per marriage lasting 10 years. It is significant that, in both

⁸ F. Lorimer and F. Osborn, *Dynamics of Population* (New York, 1934), p. 86. The authors suggest another explanation: i.e., that the house values are lower in the South where families are larger. However, the material does not permit us to test this thesis.

⁹ For Greater Oslo (Oslo and Aker), see the recent publication, *Studies of Differential Fertility in Sweden*, by K. A. Edin and E. P. Hutchinson (London, 1935), where the results previously expounded by Edin are incorporated. For Norway, see the official publication of the Central Bureau of Statistics, *Census of December 1, 1930, IX*, "Fertility of Marriages" (Norges Offisiella Statistik, IX, 62) and the article by G. Jahn, director of the Bureau, "Barnetallet i norske ekteskap 1920 til 1930," *Saertrykk av Statsoekonomisk tidsskrift*, 1935, Hefte 2-3. Dr. Jahn was so kind as to send me other unpublished data and to give some additional information on the subject.

cities, the workers do not conform to the behavior of the other classes, showing a continuous decrease of the average number of children with increase in income, in keeping with the general rule of western civilization. The rule of a greater number of children for the lower social classes proves valid also for the rural areas of Sweden (Mälar counties) to which the research has been extended, as well as for the general population of Norwegian towns and rural districts.¹⁰

5. It is important to observe that, when we speak of a lower death-rate and of a slower increase of the upper as compared with the lower social classes, we refer to the totality of the two classes without excluding the possibility that the relationship may present some irregularity for certain special groups.

Exceptions are not uncommon among the marginal occupational groups. Thus, the members of the lower classes who are engaged in domestic service assimilate some traits from the mentality of the upper classes. The consequent pressure of psychical subsistence is probably not the least cause of their exceptionally low birth-rate. On the other hand, the lowest strata of white-collar workers feel, often more strongly than many manual workers, the pressure of physical subsistence and are forced to limit the number of children below that attained by the upper strata.

Other exceptions may be found at the upper and lower extremes of the social ladder.

We have already noted how stocks, which have long since risen to

¹⁰ Certainly for Stockholm and possibly also for Oslo, the circumstance discussed in the text is not sufficient to give a full explanation of all the observed differences. As a matter of fact, in Stockholm the different groups of husbands, classified according to educational status, showed an increasing average number of children with the increasing degree of education, not only in the total groups but also in the sub-groups distinguished according to income class. Moreover, the different occupational groups show lower average numbers of children for the workers in the total group, as well as in the sub-groups distinguished according to income class, except for the lowest categories of income (under 4,000 kronen) in which the average is higher for the workers. For the occupational groups, the results obtained for Oslo are similar but less pronounced, as the average number of children for the workers remains higher than that of the general population in the sub-groups distinguished according to income, until the income class of 5,000 to 7,000 kronen, and also in the total group. Later on we will see other circumstances which may explain these differences.

the upper class and generally constitute the aristocracy of the country, may evidence degenerate traits and how the possibility is not precluded that, in extreme cases, the unfavorable action of these may prevail over the favorable influence of the environment, thus resulting in a higher death-rate.

Analogously we should consider the hypothesis that the lowest classes may have a lower birth-rate than the upper classes or, at least, a birth-rate which does not suffice to compensate for their higher death-rate, thus leading to a slower rate of increase. In fact, at the extreme limit of misery not only is increase of population impossible, but also reproduction—death alone reigning. Before arriving at such a limit there is, however, a large zone in which the population may reproduce, to be sure, but in a measure insufficient to make headway against mortality, and then a zone in which there is approximate equilibrium between the birth-rate and the death-rate, and finally a zone in which there is a numerical increase, certainly, but less than that found in the upper classes. In all these zones the action of physical subsistence is strong enough to exceed in significance that of psychical subsistence which operates in the upper classes. Hence, it is to be expected that where the lowest classes approach the limits of misery (and this has certainly occurred among many populations) they increase less than the upper classes as a whole, and not only the classes which stand immediately above them in the social scale. Such a state of affairs is, however, perfectly compatible with the uniformity that the lower classes, in their totality, manifest a greater increase than the whole of the upper classes.

However, such conditions of misery may, permanently or transitorily, extend to the greater part or even to the totality of the lower classes which, in such a case, increase less than the upper classes. One then finds a real exception to the norm of the differential increase of the social classes.

It may also happen that such conditions of misery become general for an entire population, as has been and is the case among some primitive populations which have come into contact with the white race. In

extreme cases, the deliberate intention of not bringing children into this unhappy world and a frequent sterility (which some writers view as an effect of such a psychology of desperation, but which more probably constitutes the manifestation of common degenerative factors) accompany the increased death-rate encountered in similar instances.

Occasionally, the smaller increase of the lower classes is determined by the violence of the upper classes, as in the case of oppressed populations subject to recurrent devastation and carnage on the part of rulers. Or sometimes, this smaller increase derives from hindrances to marriage and from obstacles to illegitimate reproduction, such as are often found in a regime of slavery when the cost of rearing slaves is notably higher than the price of adult slaves obtained through war or trade.

Natural increase becomes even more affected by the afore-mentioned conditions of misery when these, instead of having a permanent character, are only transitory. For, in generations accustomed to better conditions, there are not yet produced those phenomena of adaptation which, when the race is vital, are attained, after a more or less long time, even in a very unfavorable economic environment. It is known, moreover, that dynamic variations often exert effects different from static diversities even in economic conditions which do not depart from normal.

To the distressful conditions in which the lower strata of the population lived, Dr. De Meo plausibly attributes the smaller increase among persons with average income which he found to have occurred in some cities of Southern Italy during the seventeenth and eighteenth centuries. On the contrary, the persons with average income evidenced, in conformity with the norm, an increase greater than that among the group with the highest income.¹¹

6. Exceptions to the uniformity of the differential increase of the social classes may appear in particular regimes or periods in which numerous offspring are desired also, or above all, among the upper

¹¹ See the paper presented by Dr. De Meo at this same Congress on "Il ricambio sociale in alcune città dell'Italia meridionale nei secoli XVII e XVIII."

classes, being advantageous from the economic standpoint or from the viewpoint of family security or of social prestige or of political control.

A numerous progeny may constitute an advantage from the economic standpoint when the abundance of natural resources and the simplicity of equipment necessary to exploit these resources, easily renewable on the spot, make the income of the family primarily dependent upon the number of hands available. It is also necessary, however, that the conditions of production be favorable in such a manner that the earnings of the adult workers compensate the expense of rearing them, and that the family comprise an organic whole so that the gains of the children are contributed to it. These are conditions which can be, and in fact are, found in the first stages of the evolution of nations, particularly when they originate from the colonization of new land for which a primitive technical capital suffices.

A numerous progeny may be useful for the defense of family-unity when it is the family which constitutes the political organism, or when, in a larger political organization, the otherwise slight security of person and home preserves the function of defense for the family. These conditions have been found largely in other times but they can still be found, for example, in populations where the suppression of crime is based on family vendettas.

Such a state of affairs passes by degrees to one in which numerous offspring, without being necessary for defense, contribute in some way to the social prestige of the family. This may occur, for example, because numerous children make available a greater number of votes in elections or a greater number of combatants in war. The prestige is particularly great in small ethnic units in which the recognition of the importance of numbers for the power, if indeed not for the existence, of the group is marked and diffused.¹²

Among many populations, male descendants are regarded as necessary for the ancestral cult.¹²

¹² For this with especial respect to the Bantu populations, see the paper presented to this Congress by Dr. Enrico H. Sonnabend on "Il ricambio sociale in alcune popolazioni bantu," esp. pp. 10-11.

Particular conditions may also lead to a numerous progeny contributing to the political domination of a family, either inasmuch as sons can represent the father in the exercise of power over more distant regions or inasmuch as the daughters may aid through marriage in creating or in consolidating bonds of friendship or of alliance.

The conditions mentioned previously may be more readily found when political control is an easy source of wealth or when the social organization is not based on individual property or when individual property exists only for some items which—as cattle among the Bantu¹³—have the principal function of serving as a means of exchange for securing wives for the tribe.

In this last case, it is the abundance of women which comes to constitute a source of riches and of prestige, while in the preceding cases it is, exclusively or principally, the abundance of men. But given the impossibility of predicting the sex of offspring, either condition leads equally to an intensification of fertility or at least eliminates the preventive restraints derived from considerations of physical and psychological subsistence.

7. Among populations where children are regarded as economic resources, the wife who bears and rears them comes, as a reflection, also to be regarded as wealth. Moreover, in such populations, the wife generally has also a direct economic utility as a beast of labor (the first domestic animal, it has been said, was woman) and that utility becomes particularly great among populations where the men are absorbed with military pursuits. In such circumstances, the wife is purchased, and more is paid the younger and more robust she is, more being paid for spinsters than widows. Naturally the wealthier men, under such conditions, are assured of the younger and more robust girls, and this favors their having a larger number of children.¹⁴

On the contrary, where the rearing of children constitutes a liability rather than an asset, and the wife becomes a cause of expense rather

¹³ *Ibid.*, pp. 11, 17-18.

¹⁴ *Ibid.*, pp. 11, 17-18.

than a source of income, the husband, instead of paying a price for her, exacts a contribution in the form of a dowry from the parents of the bride. In general, the burden of a family, imposed by social exigencies, increases with the class-level, and in the upper classes the dowry is usually only a partial compensation. This helps to explain why the marriage-rate is lower and the age at marriage is higher among the upper classes and why heiresses, generally the offspring of couples endowed with slight reproductive powers, are so sought after.

When speaking of increase, without further specification, we have meant up to this point, and we will mean in the following, increase in the biological sense. To the afore-mentioned causes of a greater increase (in the biological sense) of the upper classes may be added, in cases where children are considered to constitute economic resources or social power, a cause of greater increase in the social sense. The upper classes may increase through the illegitimate children of their components and of their respective spouses. Under such conditions, these children are received with favor while, under different circumstances, they are repressed into the lower classes to which the other parent belonged.¹⁵

8. In addition to the economic utility of the wife and children, there is another frequently associated circumstance which tends to cause a greater increase of the upper social classes: polygyny. When wife and children represent an economic burden, few can be desirous of increasing it. Some rulers may have the desire of indulging in the luxury of a harem and of assuring a numerous progeny who may consolidate and extend their domain, but polygyny will never assume social importance under such conditions. For this to occur it is necessary that the possession of many wives be generally appraised as advantageous. In that case, the spouse is, as we have said, purchased. The purchase of wives, therefore, generally accompanies the custom of polygyny and naturally this becomes diffused principally, if not exclusively, among the wealthy classes. It is true that the components of these classes generally must recruit a part of their harem from the lower classes. But, in any event,

¹⁵ *Ibid.*, p. 21.

polygyny, by increasing the contribution of wealthy husbands to the formation of the following generation, always carries with it a higher birth-rate of the upper classes if the women are as prolific in a polygynous as in a monogamous regime. Actually, however, it is not thus, for all the evidence uniformly attests that, though the average number of children per husband is greater in a polygynous regime, the average number of children per wife is greater in a monogamous regime.

Definitively, it may be said that the birth-rate among the various social classes will differ according to the degree of polygyny and according to the difference in the fertility of women in monogamic and polygynic regimes. The following is an illustration. Let us suppose an adult population of 212 persons, of whom 100 are male and 112 female. Let us suppose further that while 90 men, belonging to the lower class, are monogamous, the other 10, belonging to the upper class, are polygynous. These 10 polygynists have married a total of 22 women, 11 of whom belong to the same upper class while the 11 others are recruited from a lower class. If half of the children of the 11 women of the lower class married to men of a higher class are counted among upper-class births and half among lower-class births, there will be an average number of children ($=1.57$) equal for the 21 persons belonging to the upper class and for the 191 persons belonging to the lower class, when the 22 women in the polygynic regime, coming either from the upper or the lower class, have an average of two children and the 90 women in the monogamic regime have an average of 3.21 children. Should the difference between female fertility in the polygynic and in the monogamic regimes be greater, the average number of children would be smaller for the components of the upper class. On the contrary, should the difference be less, it would be smaller for the components of the lower class.

An error committed even by cautious writers is that of classifying all the children of polygynous husbands as births in the class to which these husbands belong. Such an error explains the statement that polygyny always leads to a higher birth-rate of the upper classes.

However, it is to be observed that, as is usually the case, if the children remain in the paternal social class, the upper class will be found to increase more rapidly than the preceding calculation would allow. This is an effect of immission of blood from the lower class. Thus, in the preceding example, the 44 descendants of the women in a polygynic regime would belong to the upper class, although only half of them are pure descendants and half, on the contrary, are hybrids. Hence it follows that if, from the biological standpoint, the increase of the upper class is equally as great as that of the lower class, its social increase is greater. On the other hand, it is difficult to conceive such a condition as permanent. It could, indeed, be found during a period when there was an increasing place in the society for representatives of the upper classes, or else when the children of upper-class fathers are in part repressed into the lower classes. Apart from these hypothetical conditions, the polygynic regime can endure only when it is so attenuated as to permit the subsistence of a greater biological increase on the part of the lower classes. We shall see how these various hypotheses can correspond to successive phases in the process of amalgamating different stocks.

Incidentally, it may be noted that polygyny, insofar as it presupposes that some of the wives in a polygynic regime are normally recruited from a class lower than that of the husbands, involves an ascent from the lower to the upper classes. An ascent is also found in monogamic regimes, insofar as the smaller increase of the upper classes is such that they tend to become insufficient for the social functions which they are called upon to fulfill and must fill the gaps with elements selected from the lower classes. However, there are these differences between the two cases: in a monogamic regime, the ascent is a consequence of the differential increase of the social classes, whereas in a polygynic regime it is one of its factors; in a polygynic regime this ascent is in greater measure, if not essentially, by women, while in a monogamic regime it is primarily the men who ascend.

9. Up to this point we have considered exceptions to the differential increase of the social classes which are due essentially to the action of

external factors differing from conditions found normally in our social organization. But other exceptions may be due to particular conditions connected with internal factors.

In setting the problem we have supposed that the various classes would belong to the same race, differentiating between them by the different frequency with which the precocious or the retarded stocks occurred in the lower and in the upper classes. Sometimes, however, the various classes are recruited from different races and in such cases it is possible that, permanently or temporarily, the upper classes may be constituted of a more youthful race endowed with a higher reproductivity. Such is even the normal epilogue of contact between races when this results not in a peaceful mutual penetration but in the two races being self-enclosed with attitudes of reciprocal hostility. In such a case, the conflict is usually resolved, after a brief or long time, with the victory of the younger race which becomes the dominating class in the new social organization which results. Such was the epilogue of the conflict between the Romans and Barbarians, the Tartars and Slavs and, probably, the Negroes and Hamites. However, such a state of affairs is often transitory, either because the social factors which lead to a smaller increase of the upper classes subsequently predominate, as occurred among the Barbarians in Italy,¹⁶ or because the two races are fused, as was the case for the Hamites and the Negroes that gave rise to the Bantu populations.

The relations between two different races assume particular aspects when polygyny flourishes among them. Certainly this constitutes one of the most favorable conditions for developing contacts between a dominating and a dominated group. On the one hand, polygyny facilitates miscegenation and, on the other, constitutes for the dominating race a means of expansion from the biological and social standpoints insofar as it is allowed by the organization of the society. Subsequently, expansion tends to continue to the exterior by means of emigration or of war. Both of these means are facilitated by the abundance of males which is often found in the dominated classes as a consequence of a large-scale

¹⁶ In this connection, cf. *I fattori demografici*, pp. 32-33.

recruiting of women for the harems of the dominators.¹⁷ When expansion has ceased, the superfluous children of the dominator-polygynists are inevitably destined to fall into lower classes. The stimulus deriving from political expansion becomes less marked and this accentuates the difficulty of providing adequate positions for these children. In such instances, polygyny generally tends to be reduced in scope up to the point where it is compatible with the numerical equilibrium of the upper classes, save in particular cases, such as that found among the Bantu, where the abundance of wives is strictly linked with the individual's wealth and with social prestige.¹⁸

10. Just as a group of different but freely intermixing stocks does not differ in terms of the viewpoint here involved from a racially homogeneous population, so classes belonging to the same race, if they are completely closed, finally act like populations constituted by different races. Whenever the upper classes are closed to penetration by the lower classes, they end sooner or later—and so much the sooner, the more restricted they are—by declining numerically and often by degenerating individually, until they are dethroned by the lower classes which have increased both in number and in power. If, after the revolution the upper classes of one period become the lower classes, there will be found an exception analogous to that considered above (the case of two different races with the dominators having greater reproductive powers). In passing we may observe that the theory of the circulation of the élite attributes an exaggerated significance to such cases which are actually of a rather exceptional character.¹⁹

11. There are reasons for maintaining that the reproductivity of the population increases in the first period of the evolution of nations. This occurs insofar as the effect of reproductive selection, through which the

¹⁷ Cf. the paper of Sonnabend, *op. cit.*, pp. 17-18.

¹⁸ *Ibid.*, pp. 11, 15.

¹⁹ For a searching discussion of Pareto's theory of the circulation of the élite and of its relations with my theory of social metabolism, see the paper presented at this Congress by Dr. G. Levi della Vida on "La teoria della circolazione delle aristocrazie del Pareto e la teoria del ricambio sociale del Gini," and her more extensive treatment of the same subject in *Genus*, II (June, 1936).

more fecund stocks represent an increasing fraction of successive generations, prevails over the still slight tendency toward a progressive reduction of the reproductive power of single stocks.²⁰ From this circumstance, and from another afore-mentioned (that the upper classes antecede the mass of the population in the course of the evolution), some authors have wished to deduce that the upper classes should present an increase greater than that of the lower classes during such an initial period. But this conclusion is erroneous, inasmuch as the effect of reproductive selection occurs within all the classes, high or low, and thus permits the persistence of the differences between them which are due to social and biological factors.

12. If the afore-mentioned circumstances, which may produce an inversion in the differential increase of the social classes, occur with less intensity, they attenuate but do not eliminate the normal differences. Moreover, there are other circumstances of more or less general character which have an analogous effect.

One of such circumstances is represented by the system of "closed classes." Preventing the relief afforded the lower classes by an ascent to the upper classes in a regime of free mobility, the system of closed classes aggravates their condition, and intensifies repressive and preventive checks to their increase. Contrariwise, the components of the upper classes are freed from competition with elements wishing to rise from the lower strata and are thus in temporarily favorable conditions as a consequence of demand exceeding supply. As a result of this, there is a difference of rapidity in the evolution of populations with closed classes and of populations with free social circulation, a phenomenon of considerable significance.²¹

In this connection it is convenient to distinguish different forms of

²⁰ Cf. "The Cyclical Rise and Fall," pp. 10-11; *Nascita, evoluzione e morte*, p. 16; "Alcune ricerche italiane sulla riproduttività differenziale," *Economia*, 1927, reproduced in English under the title, "Some Italian inquiries into differential reproductivity," *Proceedings of the World Population Conference* (London, 1927), pp. 158-59, in which, however, typographical errors render the formulae incomprehensible.

²¹ Cf. in particular, "The Cyclical Rise and Fall," pp. 31-33; *Nascita, evoluzione e morte*, pp. 31-32; *Le basi scientifiche*, pp. 81-87, 256.

systems with closed classes, generally corresponding to different causes. The system may be determined by racial differences between the upper and lower classes, as occurred in India, where the castes were established by the Caucasian invaders in order to impede miscegenation with the subject indigenous populations, and as is the case today in America and in South Africa between the white and colored peoples. In such cases, the "closure" is bilateral, i.e., it holds both for males and females, although not strictly to the same degree, and tends to be hermetic.

On the contrary, the system may be determined by the inconveniences of an earlier regime with free circulation, inconveniences which at a certain stage in the evolution of nations are more strongly felt. Such was the case for the "lockout" of the Grand Council at Venice and for the reform attained in pre-Cortesian Mexico by Montezuma II. In such instances, the closure is for the most part unilateral (i.e., limited to men), while a certain ascent is continued in the female line through matrimony or concubinage on the part of members of the upper classes with women of the lower classes.²²

13. At this juncture, it is well to recall that the differential increase of the social classes presents a different intensity in the various stages of the evolution of peoples.²³ Hardly perceptible at first, as long as social differentiation is not so pronounced, it becomes intensified in the course of time. There are reasons for maintaining that ultimately the differential increase will become attenuated, either because wealth is widely diffused and the customs of the upper classes gradually become the customs of the entire population, or, because in the long run even the most retarded stocks eventually grow old when factors of rejuvenation through appropriate crossings do not intervene. These circumstances contribute to an explanation of the attenuation of the differential increase of the social classes which were found after the War. This is due in good part to the dissemination of birth control practices among

²² On this, in regard particularly to Mexico, see the paper presented to this Congress by Dr. D. Camavitto on "Il ricambio sociale nel Messico precortesiano."

²³ Cf. in this connection, the works and passages cited in note 1.

the lower classes.²⁴ Already initiated previously, this movement was accelerated by the War, insofar as military service had increased contacts between the components of the different social classes, and from various standpoints had led to the similar treatment of them. Moreover, the War had evoked among the elements of the lower classes who returned to civil life the aspirations of acting like the members of the upper classes.²⁵

When the biological factors of differential increase have ceased to be significant and the pressure of psychical subsistence has become general, the level of the birth-rate falls for all classes under the minimum necessary to keep the population stationary. In those extreme circumstances, it may well be expected that the less fortunate or less educated classes bear a number of children even smaller than that of the upper ones. For, among them are less pronounced and less common the desire for the perpetuation of the family name and the sentiment of duty to contribute to the strength of the nation or of the race; a desire and a sentiment which, although insufficient to keep the birth-rate on a fairly high level,²⁶ nevertheless contribute to prevent its falling below a certain point. Thus, it is not surprising to find in some Nordic metropoli, where the average number of children in practically all the income and occupational classes does not reach two after 10 years of marriage, a fertility index somewhat higher in the wealthier groups, in the higher professions, and in the better educated sections of the population.²⁷

14. Other relevant circumstances may occasionally be found. For

²⁴ It may be permissible to state that as far back as 1908 I had foreseen such an attenuation. Cf. the cited article, "Il diverso accrescimento . . ." which reproduces a paper presented to the "Seconda Riunione della Società Italiana per il Progresso delle Scienze," (Florence, 1908).

²⁵ Cf. "The Cyclical Rise and Fall," p. 23; *Nascita, evoluzione e morte*, p. 25.

²⁶ Cf. *Le basi scientifiche*, pp. 132-4.

²⁷ Cf. footnote 10. According, however, to an article by Dr. Jahn (received at the time of reading proofs) already in 1858, when the number of children per marriage was substantially greater than now, the interval between successive births was shorter in the families of clerical workers of Eilert Sund (a quarter of Oslo) than in those of skilled workers, and shorter in the families of skilled than in those of unskilled workers. Cf. "De store barnetall i gamle dager," *Saertrykk av Stats-oekonomisk tidsskrift*, 1936, Hefte 2.

example, after an exceptional restriction of increase imposed by circumstances upon a given category of the population, it is probable that there follows in the said category a more intense reaction than in the other sections of the population. It is possible that this circumstance may have contributed to the quick, postwar renewal of the birth-rate among the upper classes, which seems to be shown by the data on the birth-rate in the wealthy quarters of some cities,²⁸ inasmuch as it is likely that during the War the reduction of births may have been even greater in the upper than in the lower, less provident classes. At this same time there occurred a transitory amelioration in the economic conditions of entrepreneurs during the period of inflation.

It is probable that an analogous but more intense phenomenon of expansion of the upper classes had taken place during the first development of great industry. At the same time, the great technological unemployment and the oppressive routine of labor, extending even to wives and children, determined an exceptionally high mortality among the lower classes. Thus has been explained the lesser differentiation in the increase of the social classes which was found in England toward the middle of the last century.²⁹

The difference in the increase of the social classes may also become attenuated by propaganda and by governmental measures to stimulate births in general, or births among determinate categories of the population in particular. The propaganda which makes an appeal to patriotic sentiments generally takes stronger hold among the upper classes. Here is a circumstance which, together with those previously mentioned, may have contributed to the slight upturn of the birth-rate found in wealthy quarters after the War. Governmental subsidies, insofar as they exercise any influence, naturally exert it upon the classes to which they are suited. These are, in general, the classes of minor officials or

²⁸ See the data for Bremen in A. Grotjahn, "Differential Birth-rate in Germany," in the cited *Proceedings of the World Population Congress*, p. 153 and, for Paris, in L. Hersch, "Situation sociale et natalité d'après les statistiques de la ville de Paris," in *Atti del Congresso Internazionale per gli studi sulla popolazione*, VIII (Rome, 1931), 105 ff.

²⁹ Cf. "The Cyclical Rise and Fall," p. 23; *Nascita, evoluzione e morte*, p. 25; *Le basi scientifiche*, p. 258.

of petty bourgeois, i.e., the lower strata of the upper classes. While it may be admitted that such measures have some transitory effect, it is doubtful if they would have any effect whatsoever were they continued permanently. It may even be asked if, perchance, they might not finally exert an effect opposite to that which is sought.⁸⁰

15. At other times, particular circumstances may accentuate the normal diversity in the increase of the various social classes. For centuries that was certainly the case in periods of warfare, to which the nobility, more than the other classes, made great contributions of blood.⁸¹ Moreover, the devastations, expulsions, exoduses, and carnage of the vanquished populations, which so often followed the war, generally struck in greater measure the more prominent persons and the upper classes, either because they had taken a more active part in the war or because their property more readily aroused the cupidity of the victors. In respect to war losses today, conditions are perhaps inverted, not because the components of the upper classes are less exposed to death when participating in the war (on the contrary, in many states the officers have a higher death-rate than the privates),⁸² but because they may be more easily exempted from service.

During the last prewar period, the smaller increase of the upper classes was accentuated in many states by the fact that the neo-Malthusian propaganda had taken hold to a considerable extent among these classes, while the lower classes continued relatively free from it. On the other hand, the demographic balance of the lower classes, especially in cities, became favorable as compared with the past through the hygienic and sanitary measures taken on their behalf by the public authorities. The last two causes have combined in the great cities of

⁸⁰ Cf. "The Cyclical Rise and Fall," pp. 27-28 and 46-47; *Nascita, evoluzione e morte*, p. 28, and footnote 21 on pp. 40-41.

⁸¹ Cf. *Il diverso accrescimento*, pp. 9-10; *Le basi scientifiche*, pp. 245-46.

⁸² Cf. my report on "Gli effetti eugenici e disgenici della guerra," presented at the Third International Congress of Eugenics (21-27 August, 1932) and reprinted in *Genus*, I, 37. The report is published under the title, "Report of the Committee for the Study of the Eugenic and Dysgenic Effects of War," in the volume *A Decade of Progress in Eugenics, Scientific Papers of the Third International Congress of Eugenics* (Baltimore, 1932), pp. 231-43.

Europe toward the end of the last and the beginning of this century, as is attested by various statistics on the differential increase of urban areas classified according to the degree of their wealth. It is reasonable to hold that the differences found for that period were higher than normal. This helps to explain the lesser intensity, in these differences, which was found in the same cities in the postwar period and also in an earlier period.³³

16. The foregoing review shows how multiple circumstances, some permanent, others saltatory or occasional, intervene to modify from place to place and from time to time the differences in increase of the various classes. In spite of these, one may speak of a norm in the sense that, in our social organization, the increase is generally less for the upper social classes, but it is difficult to establish what the normal intensity of such differences would be if there were no special causes of modification.

³³ Cf. the publications cited in notes 24, 25, 28, and 29.

Historical Background of California Farm Labor

Paul S. Taylor and Tom Vasey

DURING less than a century of agricultural history, the rural work of California has been performed successively by ranch hands, by farm hands, and by semi-industrialized proletarians. Today the latter dominate the rural scene—numerous, mobile, and racially varied to a degree beyond the agricultural laborers of all other states. The present article examines the historical trends which underlie these changes. A following article will analyze the unique characteristics of the contemporary farm labor problem of California, and contrast them with the labor problem of other significant types of agriculture.

The form of land use has been a major determinant of the prevailing labor type at each period in the history of rural California. Spanish and Mexican domination turned the hunting grounds of the Indians rapidly into ranges for livestock, and made *vaqueros* and *pastores* the first dominant type of rural worker. Great herds roamed the hills and plains. Hides and tallow were exported, but flour was imported. Agriculture was developed only as an adjunct to ranching.

During the American period, three trends in the use of California farm land have markedly influenced the type of labor dominant at different periods. Statistical indices of these trends are presented in Table I. The first column, representing acreage of land in farms,

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reflects the growth of land occupation, and the first encroachment of settlers on the range of the *vaqueros* and *pastores*. Occupation was very rapid after 1849, and steady. Acreage of all land in farms rose from less than four million in 1849 to 11 million in 1869, and to nearly 29 million in 1899, or practically its present extent. While the total area in farms was increasing, the acreage of improved land within these farms was also expanding rapidly. From less than 33,000 acres in 1849, it rose to two and one-half million within a decade, and reached its peak of 12 million acres by 1889, only 30 years later. While the gold rush increased the number of miners from 57,797 to 82,573 during the Fifties, the number of farmers rose from 1,486 to 20,836 in the same decade. Column two of Table I shows this increase of cultivation statistically. Cultivation marked definitely the eclipse of laborers who tend pastured cattle and the rise of laborers who tend crops.

Wheat was the principal crop, and soon the Central Valley became a major granary of the world. At first, Indians were used extensively as farm laborers for cultivating and harvesting grain. Methods were primitive. Single-shared plows, harrows made of limbs, and scythes were used; mustangs stampeding through a corral threshed the grain. But during the next three decades machinery was revolutionizing the use of hand labor, and whites were replacing the Indians. Machine sowing, the multi-shared plow, and mechanical harvesters rapidly diminished dependence upon labor. The early adoption of the combine on the bonanza wheat farms of California marked "the logical ultimate step in the evolution of large-scale methods of harvesting."¹ White laborers, often single and migratory, supplied the limited demand for farm hands.

Just as increasing population and farm settlement restricted the area of range for cattle, so the introduction of irrigation encroached upon grain production and overshadowed the typical farm hand. Not that grazing and grain production had become impossible, but irrigation

¹ Leo Rogin, "The Introduction of Farm Machinery," *Univ. of Calif. Pub. in Econ.*, IX, 119.

and intensive crops supported a greater population through greater productivity and a higher income for a given area. This change has been noticeable particularly since 1890. In fact, during the past 40 years, the significant feature of California agriculture has been not expansion of the area under cultivation, but intensification of the use of areas already cultivated. With the exception of the Imperial Valley, no large new areas were brought under cultivation during that time.

The earliest irrigated commercial crops were grapes and fruit. The opening of markets through the completion of the transcontinental railroad in 1869 greatly stimulated their production. Hops had also been introduced by this time, and their acreage increased rapidly from 1870 to a peak in 1910. Sugar beets followed, first in the Seventies, but principally after the Dingley Tariff Act of 1897. Truck crop production has developed mainly during the past quarter century. Cotton was first commercially produced in 1909, but had its chief expansion during and after the War. Lettuce production on a large scale dates from the early Twenties.

This latest significant trend in land use is shown by column three of Table I. The extension of irrigation lagged behind the extension of the cultivated area. From small beginnings, however, it increased rapidly, particularly from 1869 to 1889 and from 1899 to 1919. The expansion of improved and irrigated acreage is graphically presented in Chart 1. Table II shows the increase in number of farms irrigated from 13,732 in 1889 to 85,784 in 1929, and from 4.7 per cent of all farms to 15.6.

Intensive agriculture, founded upon irrigation, has subordinated the typical farm hand. Requiring large numbers of hand laborers, it has built up in California a semi-industrialized rural proletariat. Because of the vast difference in the amount of labor required to cultivate a similar acreage of grain as compared with truck, fruit, and cotton, Tables I and II and Chart 1 inevitably understate the labor significance of the rise of irrigation as compared with the much greater area of improved land. More nearly adequate in this respect is Table III,

TABLE I

ACREAGE OF ALL LAND IN FARMS, OF IMPROVED LAND IN FARMS, AND OF LAND UNDER IRRIGATION IN CALIFORNIA, 1849-1929*

Year	Land in Farms		
	All Land	Improved Land	Under Irrigation
1849	3,893,985	32,454	.....
1859	8,730,034	2,468,034	.....
1869	11,427,105	6,218,133	58,273†
1879	16,593,742	10,669,698	299,575†
1889	21,427,293	12,222,839	1,004,233
1899	28,828,951	11,958,837	1,446,114
1909	27,931,444	11,389,894	2,664,104
1919	29,365,667	11,878,339	4,219,040
1929	30,442,581	‡11,465,164	4,746,632

* Statistics for this table and others accompanying this article were compiled from *U. S. Census* unless otherwise specified.

† Reports of the Surveyor General of California.

‡ Improved land, 1849 to 1919, is a census classification which includes "all land tilled or mowed, land in pasture which has been cleared or tilled, land lying fallow, land in gardens, orchards, vineyards, nurseries, and land occupied by farm buildings." The comparable figure for 1929 represents the total of "crop land" and "plowable pasture."

TABLE II

FARMS UNDER IRRIGATION IN CALIFORNIA, 1889-1929

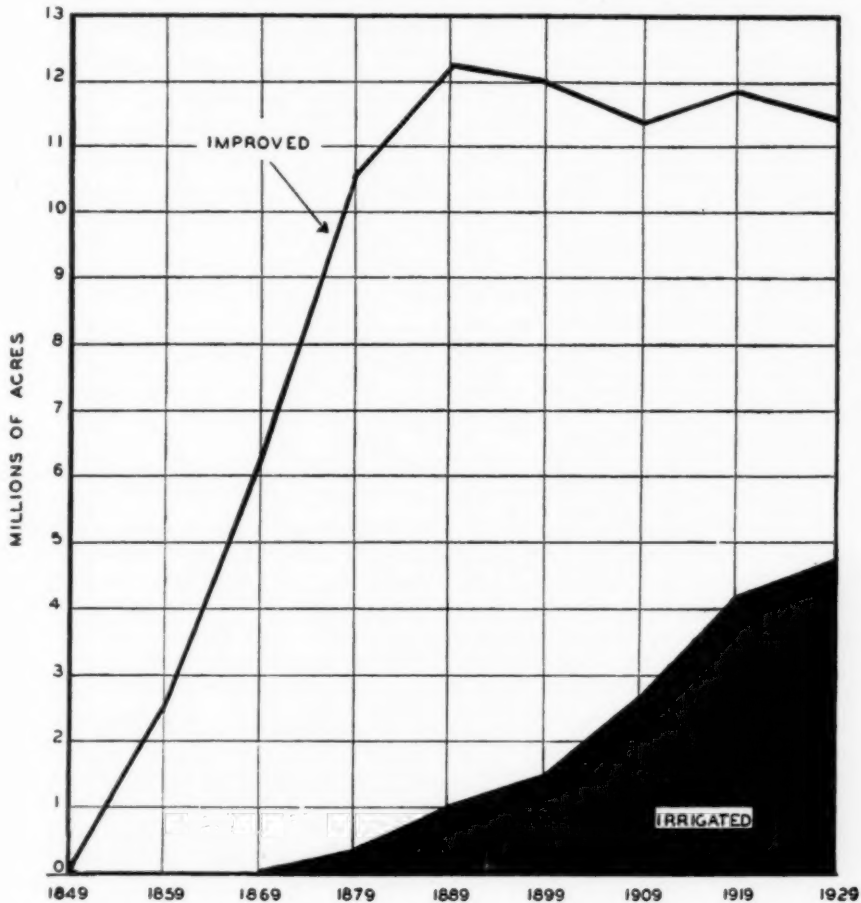
Year	Number of Farms	Per cent of all Farms	Per cent of Land in Farms	Per cent of Area of State
1889	13,732	26.0	4.7	1.0
1899	25,675	35.4	5.0	1.5
1909	39,352	44.6	9.5	2.7
1919	67,391	57.3	14.4	4.2
1929	85,784	63.2	15.6	4.8

which compares the value of extensive crops with the value of intensive (truck, fruit, and cotton) crops since 1869.

Extensive crops in California fluctuated in value from 35 millions in 1869 to 110 millions in 1929, with a peak of 204 millions in 1919

CHART 1

AREA OF IMPROVED LAND AND IRRIGATED LAND IN CALIFORNIA, 1849-1929



(see Table III and Chart 2). But during the same period, intensive crops rose in value from less than two and one-half million dollars in 1869 to 397 millions in 1929. Relatively, intensive crops rose in value from 6.6 per cent of all crops in 1869 to 78.4 per cent in 1929. Graphically, this striking increase is presented in Chart 3. Here lies the major explanation of the fact that farm laborers in California increased from 13,541 in 1860 to 196,812 in 1929, and from 37.3 per cent of all

persons gainfully employed in agriculture to 59.3 per cent, the highest proportion in any state of agricultural importance.

TABLE III
RELATIVE IMPORTANCE OF EXTENSIVE AND INTENSIVE AGRICULTURE
IN CALIFORNIA, 1869-1929, MEASURED BY VALUE OF CROP*

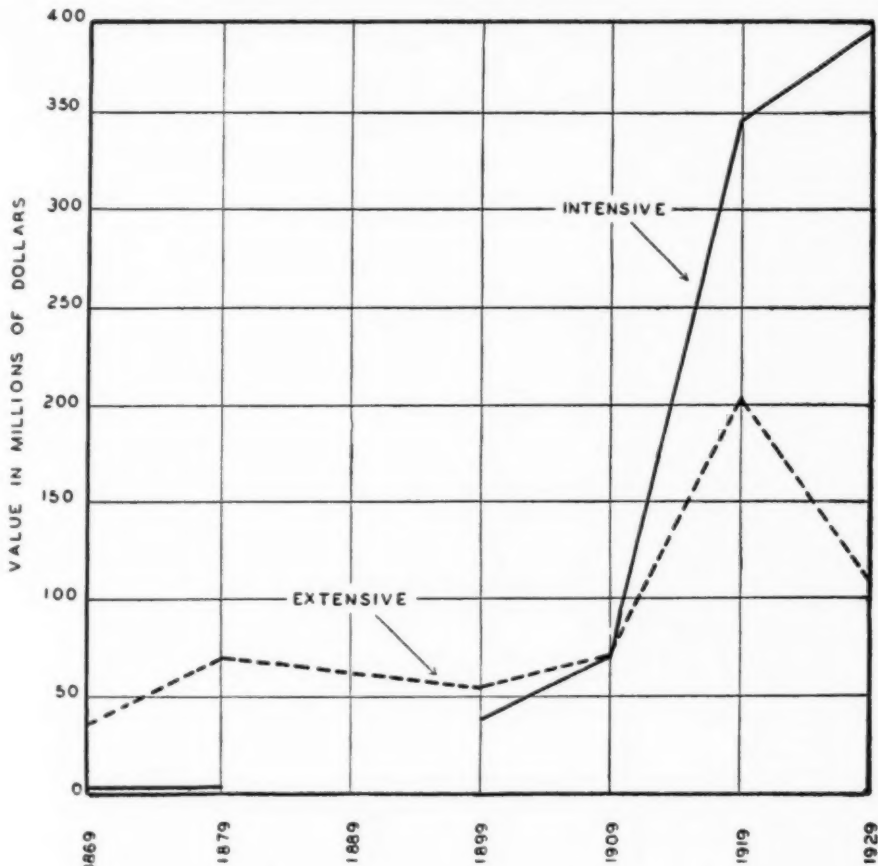
Year	Value of Crop		Per cent	
	Extensive	Intensive	Extensive	Intensive
1869	\$ 35,006,614	\$ 2,444,259	93.4	6.6
1879	69,304,121	2,813,977	96.1	3.9
1879	69,304,121	2,813,977	96.1	3.9
1889	62,603,721	.....	....	....
1899	53,111,131	40,441,677	56.7	43.3
1909	70,246,078	68,886,694	50.5	49.5
1919	204,692,315	346,249,327	36.6	63.4
1929	109,902,741	397,030,268	21.6	78.4

* Compiled from *U.S. Census* and *U.S.D.A. Statistical Bulletins* 56-63. The distinction employed here between "extensive" and "intensive" crops is based upon important differences in the amount of field labor required for crop production. *Extensive crops*: From 1899 to 1929 the census classifications of "cereals" and "hay and forage" were combined. From 1869 to 1889 the total value of corn, wheat, oats, barley, rye, buckwheat, and hay was used, as given by the U.S.D.A. bulletins cited above. This crop classification is substantially the same as that employed from 1899 to 1929. *Intensive crops*: In 1919, 1929, and 1909 the following census crop classifications were combined: "vegetables (including potatoes)," "fruits and nuts," "cotton (lint and seed)," "hops," and "sugar beets for sugar." In 1899 the following classifications were combined: "vegetables" (including sugar beets reported grown by farmers), "small fruits," "orchard products," "grapes," "beans," "hops," "sugar beets," (reported by factories), "sub-tropical fruits," and "nuts." The value of intensive crops is not obtainable for 1889; 1869 and 1879 represent a combination of "orchard products" and "market-garden." The total value of "all crops" reported by the census is slightly above the combined value of extensive crops listed here. The discrepancy is not important for the purpose of this table. It arises partly from variations in census classification employed in different decades; in this table forest and nursery products represent the chief omissions in recent decades.

The historical trends since 1860 of "all persons gainfully employed in agriculture" and of those employed as "farm laborers" are shown in Table IV. In order to permit significant comparisons, data from Iowa, Mississippi, and the United States as a whole are included. Iowa and Mississippi represent types of agriculture which differ widely

CHART 2

**VALUE OF INTENSIVE CROPS AND VALUE OF
EXTENSIVE CROPS IN CALIFORNIA, 1869-1929**



from each other and from California. The principal crop of Iowa is corn, which is extensive. The principal crop of Mississippi is cotton, which is intensive at present, although development of a successful mechanical picker may render it extensive in the future. In both California and Mississippi, the percentage of all persons gainfully employed in agriculture *who were laborers* is above the national average and far above the percentage in Iowa. Graphic presentation of these data is made in Charts 4 and 5. Further comparison of the rural labor

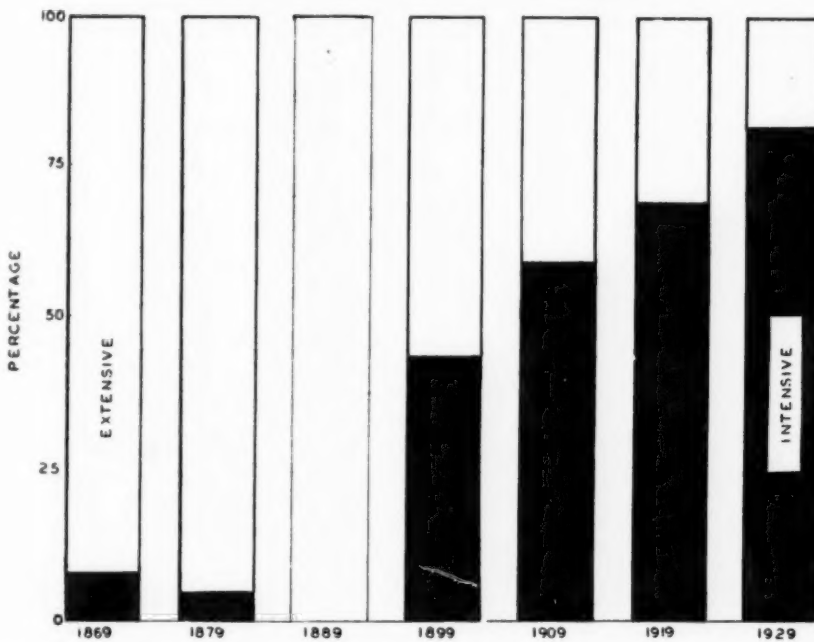
TABLE IV
FARM LABORERS (PAID AND UNPAID), IN RELATION TO ALL PERSONS GAINFULLY EMPLOYED IN AGRICULTURE
(10 YEARS OF AGE AND OVER), IN THE UNITED STATES, CALIFORNIA, IOWA, AND MISSISSIPPI, 1860-1930

	Persons Gainfully Employed in Agriculture					Farm Laborers					Per cent		
						Number							
						U. S.	California	Iowa	Mississippi	U. S.			
1860*	3,340,341	37,785	116,191	57,585	808,791	15,014	27,270	7,990	24.2	39.7	23.5	13.9	
1870	5,919,993	47,863	210,263	259,199	2,898,317	19,239	69,894	181,544	48.9	40.2	33.2	70.0	
1880	7,663,043	79,396	303,557	339,690	3,360,416	28,546	89,878	215,542	43.8	36.0	29.6	63.4	
1890	8,450,036	129,715	321,566	358,174	3,065,248	59,145	75,340	180,693	36.3	45.6	23.4	50.4	
1900	10,305,029	145,801	370,957	486,560	4,522,270	71,867	134,221	259,824	43.9	49.3	36.2	53.4	
1910	12,388,300	211,898	353,724	671,955	6,205,633	119,611	137,659	399,623	50.1	56.4	38.9	59.5	
1920	10,665,812	260,612	326,230	498,498	4,186,128	125,248	106,490	223,958	39.2	48.1	32.6	44.9	
1930	10,471,998	332,024	330,881	557,067	4,392,764	196,812	117,016	250,162	41.9	59.3	35.4	44.9	

* The data for 1860 relate to all free persons 15 years of age and over.

CHART 3

**RELATIVE IMPORTANCE OF EXTENSIVE AND INTENSIVE
AGRICULTURE IN CALIFORNIA, 1869-1929,
MEASURED BY VALUE OF CROPS**



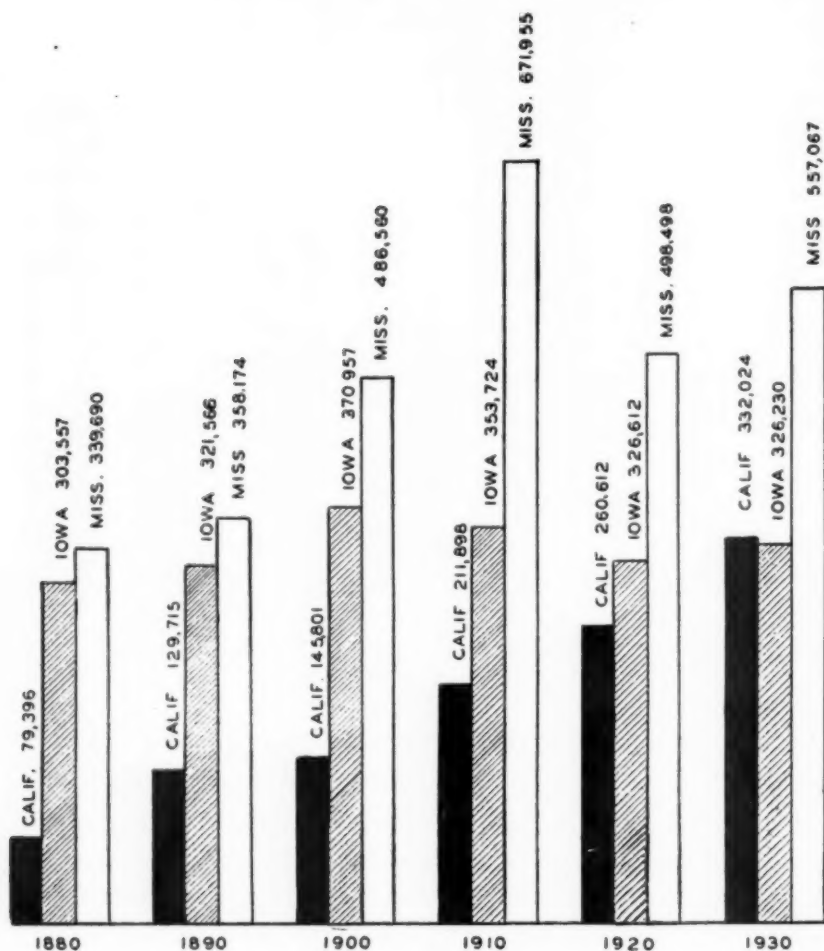
problem in California, Iowa, and Mississippi will be developed in the succeeding article.

The intensification of agriculture accounts not only for the large percentage of farm laborers in California; it is responsible, also, for the long line of immigrant nationalities which have played so large a rôle in the agriculture of the state. As with the large industrial plants of the East and the cotton plantations of the South, so with the California irrigated farms, the source for cheap labor has generally been in the areas of the world with a low standard of living.

In Table V is presented the population in California since 1850 of each of the principal Oriental groups which have played an important part in agriculture, or whose presence in the state is owing in considerable measure to the farm employment available to them. Mexicans,

CHART 4

**NUMBER OF PERSONS GAINFULLY EMPLOYED IN
AGRICULTURE IN CALIFORNIA, IOWA AND
MISSISSIPPI, 1880 - 1930**



too, are included on the only uniform basis available, viz., white persons born in Mexico. The Oriental and the Mexican groups stand apart not only because of their wide participation in intensive agriculture, but also because of their lack of participation in the older forms of farming. A small number of "ranch hands" of Mexican stock who have served

TABLE V
MEXICAN AND ORIENTAL POPULATION OF CALIFORNIA, 1850-1930*

<i>Year</i>	<i>Persons Born in Mexico</i>	<i>Chinese</i>	<i>Japanese</i>	<i>Hindus</i>	<i>Filipinos</i>
1850	6,454	660	.....	.....	.....
1860	9,150	34,933	.....	.....	.....
1870	8,978	49,277	33	.....	.....
1880	8,648	75,132	86	.....	.....
1890	7,164	72,472	1,147	202	.....
1900	8,086	45,753	10,151	263	.....
1910	33,694	36,248	41,356	1,948	5
1920	86,610	28,812	71,952	1,723	2,674
1930	199,994	37,361	97,456	1,873	30,470

* Italicized figures show nationality as indicated by foreign birth; other figures show "race" irrespective of country of birth. Since Mexicans were not given a separate racial classification until 1930, the figures of the first column for 1850 through 1920 represent "foreign-born whites" born in Mexico. For purposes of comparability with preceding figures, the 1930 figure given here is the total of 8,648 "foreign-born" white persons born in Mexico and 191,346 foreign-born Mexicans. The number of "Mexicans" in California in 1930 was 368,013.

on cattle and sheep ranches ever since the American occupation constitute a minor exception. In general farming on non-irrigated land Orientals and Mexicans rarely work as farm hands, in contrast with the "white" groups which do.

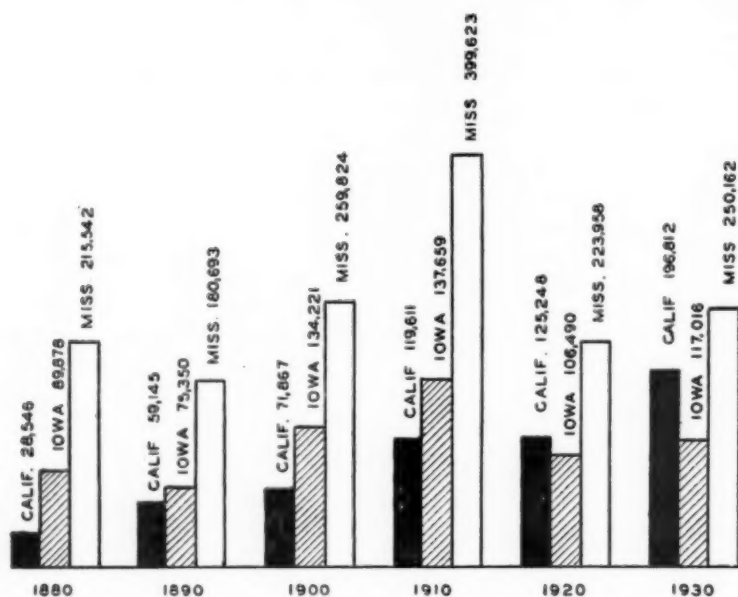
European immigrants as well have played, and continue to play, an important part in agriculture. They are not included in this discussion, however, because as a group they graduated to farm ownership or operation more rapidly than any Orientals except perhaps the Japanese, and because the greater rapidity of their assimilation has made their presence among the general population less noticeable. Upon the basis of these racially distinct groups, the intensive labor crops have been developed in the state.

In the Fifties, Chinese entered agriculture where labor was scarce, and because whites drove them from the mines. Railroad construction during the Sixties brought thousands more Chinese to California. Many

of these, released by completion of the Central Pacific Railroad in 1869, entered the newly developing truck and fruit farms as seasonal and hand workers. The second generation of Chinese in California, however, has avoided farm employment almost completely.

CHART 5

**FARM LABORERS, PAID AND UNPAID, IN CALIFORNIA,
IOWA AND MISSISSIPPI, 1880-1930**



Japanese workers in the Nineties and early 1900's began to supersede the Chinese, whose numbers were not recruited by fresh immigration, and to meet the needs of expanding irrigation. American and European whites, too, labored throughout the period. Largely they were of the casual labor type of single men, so well described by Carleton Parker, or they were men who passed through agricultural employment, going on to farm operation, management of small businesses, or occupations where wages were higher. Small numbers of Hindustanis worked in gangs on the farms during the decade or more before the War, then advanced rapidly to farm operation, foremanship, or labor contracting.

TABLE VI
MEXICANS, CHINESE, JAPANESE, AND FILIPINOS IN CALIFORNIA ENGAGED IN AGRICULTURE,
CLASSIFIED BY OCCUPATIONAL STATUS, 1930

	Engaged in all Occupations	Engaged in Agriculture		Status of Persons Engaged in Agriculture					
		Number	Per cent	Farm Owners and Tenants		Farm Managers and Foremen		Farm Laborers	
				Number	Per cent	Number	Per cent	Number	Per cent
Mexicans*	128,092	42,608	33.3	1,124	2.6	293	0.7	41,191	96.7
Chinese	20,453	2,641	12.9	367	13.9	83	3.1	2,191	83.0
Japanese	37,219	19,353	52.0	3,135	16.2	1,649	8.5	14,569	75.3
Filipinos	27,403	16,331	59.4	132	.8	99	.6	16,100	98.6

* "Mexican" here refers to Mexicans according to the census of 1930 (see footnote to Table V) and not to "persons born in Mexico," the figure used in column one of the preceding table.

Filipinos came in large numbers during the Twenties, and continue to move about the valleys of the state, working in large gangs.

The principal outside source of labor to meet the rapidly expanding needs of intensive crops after about 1910 was Mexico. Especially during and after the War, until checked by administrative action in 1929, they immigrated to the United States and California in large numbers. Beginning with 1930, however, the force of economic depression caused a strong net movement back to Mexico.² During the same period, but particularly since the drouth of 1934, thousands of rural native whites from the Southwest have fled to California, where they joined the ranks of migratory laborers.³ In a number of rural areas, their replacement of Mexican laborers has been notable.

The extent to which the Mexicans and Orientals in California were engaged in agriculture in 1930 is shown by Table VI. The Chinese had almost entirely left agriculture by that date. Only 12.9 per cent remained, 83 per cent of whom were laborers, and 13.9 per cent were farm operators. Fifty-two per cent of the Japanese engaged in all occupations were still in agriculture, 16.2 per cent as farm operators, an additional 8.5 per cent as managers or foremen. Only 75 per cent of Japanese were laborers.

One-third of the Mexicans engaged in all occupations were engaged in agriculture, according to the census. Probably this greatly understates the true situation, since large numbers of Mexicans who work seasonably in agriculture resided in urban centers on the census date, and probably were recorded as laborers rather than as farm laborers. Nearly all of the Mexicans who were engaged in agriculture, 96.7 per cent, were farm laborers. Almost 60 per cent of the Filipinos were engaged in agriculture, of whom practically all were laborers.

The use of alien workers on California farms has markedly complicated the adjustment of economic and human relations in agriculture.

² Paul S. Taylor, "Mexican Labor in the United States: Migration Statistics IV," *University of California Publications in Economics*, Vol. XII, No. 3.

³ See the article by the present writers, "Drought Refugee and Labor Migration to California, June-December 1935," *Monthly Labor Review*, February, 1936.

It produces conflicts which are at times of violent intensity. It creates problems which will require patience and firmness if they are to be solved. The place of these groups together with that of other labor groups in contemporary California agriculture will be analyzed in another article.

Social Attitudes of the Czechoslovakian Peasant Towards the Other Occupational Groups

Antonín Obrdlík

THE CZECHOSLOVAK peasant, like all other peasants, has his own attitudes which are determined, in addition to other factors, by his occupation and by the environment wherein he lives and works. His proximity to the soil determines most of the characteristics of his material as well as his spiritual life. As seen from numerous sociological studies which analyze rural life, the peasant is markedly characterized by traditionalism and egocentrism. This consciousness of self-importance is expressed by the typical peasant in Central Europe who says, "If the peasant has nothing, the landlord also has nothing." He is well aware that his work benefits the whole social unit. But is he not misled by his egocentrism to overlook the importance of other occupations? Is he aware of his interrelation to the other units of the social whole, whereby all occupations are interdependent? Answers to these questions will be offered as a result of the present investigation.¹

The following questions were given to the various groups of Czechoslovak people:

Dr. Antonín Obrdlík of Masaryk University, Brno, Czechoslovakia, was a Rockefeller visiting scholar in the United States in 1935-36.

¹ This study is a part of numerous concrete investigations organized by the sociology department of the Masaryk University (Brno, Czechoslovakia), under the guidance of Dr. In. Arnošt Bláha, head of the sociology department. The author summarizes here a section of the "Questionnaire" submitted to the various groups of Czech people for the purpose of ascertaining the attitudes of the public opinion with regard to the concept of general welfare. Several hundred answers were received from twelve different occupational groups. This study summarizes only the data from the seventy-four questionnaires answered by peasants.

1. Rate the following occupations according to their importance in promoting the general welfare: artisan, priest, politician, teacher, peasant, worker, engineer, physician, soldier, artist, merchant, lawyer, industrialist. If you consider an important occupation is missing from this list, add and rate it.
2. Why do you consider the first three occupations in your rating as the most important?
3. Can our state get along without any of the above occupations if it is to improve the welfare of its citizens and successfully compete with other nations? Which ones? Why?

The purpose of the first question was to determine the comparative importance of different occupations to the representatives of the peasants. The second question was to justify the evaluation of the first three occupations. The third question was to help explain the answers to the first two and to determine more fully the evaluations given certain occupations.

Of a total of 74 peasants, 12 answered the first question in a general manner without offering any classification; for instance, "All occupations are of the same importance for the creation of a general welfare." Of the remaining 62 answers, 55 placed the occupation of the peasant first. It is not surprising, indeed, that the peasants placed their own occupation at the top of the scale, but it is rather surprising that this did not happen in every case. In two cases the priest, and in five cases the teacher were rated above the peasant. This shows that the egocentrism of the peasant is not so narrow and blind as is often assumed. But the placement of the peasant in the first place does not explain everything. It will be necessary to notice the order of classification of the other occupations, and especially the justification of this order. In the majority of cases, the four following occupations, out of a total of 13, were named in the first three places: peasant-worker-teacher, 17 times (30.9 per cent); peasant-worker-artisan, nine times (16.4 per cent); and peasant-teacher-artisan, six times (10.9 per cent). Other first ranking trinities were as follows: peasant-teacher-soldier, four times (7.3 per cent); peasant-priest-worker, three times (5.5 per cent); peasant-worker-soldier, three times (5.5 per cent); peasant-priest-physician, twice (3.6 per cent); peasant-worker-physician, twice (3.6 per

cent); and peasant-worker-politician, twice (3.6 per cent). The occupations in the remaining first ranking trinities (12.8 per cent) which occur only once may be summarized as follows: peasant, six times; teacher, four times; physician, three times; worker and priest, twice each; and artisan, politician, soldier, and merchant, once each.

It is obvious that primarily the peasant has a sense of solidarity with other manual workers (factory-workers and artisans) and that he also appreciates the importance of education (the teacher). Next in importance was the physician (seven times) and the soldier (eight times). As the peasantry is often considered the most religious element of the nation, it is surprising that minor importance is given the religious occupation. The priest occurred in the first trinity only seven times. Likewise, the politician was placed in the upper three occupations only three times.

Placing the peasant in the first place is justified by the argument that he is "the original producer" or "the provider of the necessities for all other groups." We learn, for instance, that "food must first of all be guaranteed before the other classes can pursue their occupations." In the majority of other cases, the answers were variations of this theme. In favor of other occupations, we quote a 57-year-old owner of a small farm: "The occupation of a conscientious teacher, to whom is entrusted the education of our youth in the most pliable age, can be rightly considered as meritorious as the occupation of the physician who aims to conserve the national health. The laborers of all categories also substantially help to promote the general welfare of the nation."

The answers to the second question can be classified into four categories. The first is formed by the 26 answers (35.1 per cent) which considered all of the occupations necessary for the maintenance of the general welfare. The second group is formed by four answers (5.4 per cent) which expressly stated that all occupations are not necessary for this purpose. In the third group we place the 41 answers (55.4 per cent) which acknowledged that each occupation is important but considered the first three the most important. The fourth group is com-

posed of three vague answers (4.1 per cent). All in all, nine-tenths of the answers show that all occupations are considered important for the maintenance of general welfare although they are not all of the same importance. (This statement is based on the assumption that the answers from the first and the third groups can be combined).

The answers repeatedly emphasize that the occupations must be carried out conscientiously and faithfully. It is especially noticeable that the peasant realizes the dependence of his occupation on others. Many describe this dependence by clear parallels, some as a chain in which they are only a link, and others as a machine of which they are a cog in the wheel.

In the answers to the third question, this liberal attitude towards other occupations is not so evident. Out of 74 answers, 44 (59.5 per cent) were negative (*i.e.* the state must include all occupations if the citizens are to prosper and if the state is to be able to compete with other states), 22 (29.7 per cent) were positive, and eight (10.8 per cent) were vague. Among the negative answers was strong criticism of some of the occupations. These objections were directed against the lawyer 11 times, industrialist six times, merchant four times, priest four times, politician three times, the middleman in business three times (this occupation was added to the original list by some of the group), and the soldier twice. Two people expressed their dissatisfaction with the social situation of the peasant because of the disadvantage which he suffers in comparison with other social classes. At other times, doubt was expressed about the importance of some occupation for the public welfare. Sometimes an occupation was considered a positive hindrance to public welfare. The lawyers were the group attacked most frequently. The priest was opposed in some cases because "only a few priests today are really priests, most of them being agitators for political parties and thus destroying the faith of the people in the church." The content of the condemnation of the politician is evident from the statement of a 61-year-old renter: "Politics is the main evil of the nation and the state."

The fact that the peasant does not evaluate certain occupations formalistically should be especially mentioned. He realizes that even the best occupation can be reduced in importance if carried on by the wrong person. In one case, for example, the second place is given to the teacher "who is aware of his mission." In another case, the word "priest" (also in second place) is followed by "if a good person!" Other statements of this kind could be cited.

Finally, it is of interest to know which occupations were placed at the bottom of the scale or in the lower trinity. In some cases the ratings do not include all thirteen occupations. Hence in this comparison we consider only the 47 answers which rated at least eight occupations. The lawyer is placed at the bottom 14 times (29.8 per cent), the priest four times (17 per cent), the politician and artist each six times (12.8 per cent), the industrialist and engineer each four times (8.5 per cent), the merchant three times (6.4 per cent), and the soldier twice (4.3 per cent). In the lowest trinities (also 47 cases) the artist-lawyer-politician appeared six times (12.8 per cent), the politician-priest-lawyer and the artist-lawyer-priest six times each (10.6 per cent), the politician-soldier-lawyer, the lawyer-industrialist-priest, the engineer-lawyer-artist, the merchant-artist-lawyer, and the merchant-lawyer-priest twice each (4.3 per cent). The remaining lowest trinities (44.7 per cent) occur only once each, and the single occupations may be summarized as follows: lawyer, 16 times; engineer, artist, merchant, industrialist, eight times each; politician, five times; priest, four times; soldier, three times; physician, twice; and teacher, once.

Special mention must be made of the answers to the first question in which the occupations were not classified singly but in groups. Particularly significant is the answer of a 37-year-old peasant (of a middle peasant class and a graduate of a law school): "I cannot place any single occupation before another. In order to rate them according to their *economic* importance, I would group them as follows: (1) peasant-worker-artisan-industrialist; (2) teacher-politician-engineer-physician-priest; and (3) merchant-lawyer-artist-soldier. Within each group the occupations are of equal importance. If I am to classify them,

however, according to their importance *for the formation of public welfare*, then I would place the second group first and the first group second as I think that the first group, being purely productive, is not able by itself to produce and safeguard the public welfare." This man, of course, realizes the interdependence of different social groups because of his education. But it would be a mistake to take this answer as the exception, or to ascribe it solely to his higher education. In fact, other answers, given by simple persons with little education, show so much common sense that we are justified in speaking about the advanced popular sociological sense of the peasants' wisdom gained from their life experiences. The proof may be the words of a small peasant, 64 years old and with a grammar school education, who states: "All occupations are important, but each, of course, in an appropriate time. As a peasant, for instance, I need a smith, a wheelmaker, and a locksmith; if I am sick, I need a physician; and I am sending my children to be taught by our teacher. So each profession finds its value in due time." There is no doubt that such individuals are the cement of the social order as they are able to avoid the injurious results of social exclusiveness.

All the answers were also analyzed from the standpoint of religious affiliations. There were 61 Roman Catholics, five members of the Czech Brethren Church (Protestants), three of the Czechoslovak National Church, and five "without confession." In all cases except one the non-Catholics placed the priest in the lower half of the classification; the exception placed the priest fourth. The Catholics were divided into two groups. One, including nearly two-thirds of the sect, showed no religious preference and no relation between religious and political adherence. Although they were Catholics, they were members of the Czechoslovak Agrarian Party and not of the existing Czechoslovak Catholic Party (*strana lidová*). The second group, on the other hand, showed a strong relation between the religious and political convictions. Although they are peasants, they belong to the Catholic political party. This is shown very clearly in the respective classifications: the Catholics always placed the priest within the upper half of their scale (two of

them even placed him at the top), while the "Agrarians" gave him a less important place (from the sixth to the thirteenth) and sometimes even omitted him entirely. Preference for the priest over the teacher is given in only two cases. In short, occupation is not the only factor in the determination of attitudes to other occupational groups. We must also consider political and religious convictions, age, sex, education, and so on.

When we compare the results of our investigation of peasants with the results we have obtained in a more general study of the attitudes of the different occupational groups, we reach some interesting conclusions. In Table I we present some results from the larger survey of the occupations included here, showing how many times each has been placed first as the most important by each occupational group. In the last column is shown the percentage of the individual occupations appearing in first place. It will be observed that the peasant has been placed first in the scale in nearly one-half of all cases (47.9 per cent). All other occupations fall far below this: the teacher ranks first in only 19.0 per cent of the cases; and the worker in only 10.3 per cent. If we analyze the table in more detail, we notice that all 12 of the groups have most frequently placed the occupation of the peasant first. There isn't a single exception to this. Thus, it is obvious that the peasant class receives the highest verbal approbation in Czechoslovakia.

Table II also bears out this conclusion. In no case in the total classification has the occupation of the peasant been placed last. This also holds for the teacher and physician.

Hence the results of this investigation of the "professional antagonism" of the Czechoslovakian peasant can be summarized as follows. He places his own occupation first most often. He is proud of it because he realizes the importance of his work for the welfare of the whole nation. He values the work of laborers and artisans next and thinks highly of the teacher as well as certain other occupations. It cannot be said that the peasant's professional antagonism appears in any definite form, but that does not prove that it does not exist. Although nine-

TABLE I
CLASSIFICATION OF OCCUPATIONS PLACED FIRST BY THE DIFFERENT OCCUPATIONAL GROUPS

Occupations	Occupational Groups													
	Peasants	Workers	Independent Businessmen: I ¹	Merchants	Independent Businessmen: II ²	Public and Private Employees ³	Public Officials ⁴	Private Officials ⁵	Public and Private Officials ⁶	Teachers: I ⁷	Teachers: II ⁸	Soldiers	Total	Percentage
Artisan.....	..	3	9	4	..	4	2	1	1	..	..	1	25	3.68
Priest.....	2	4	2	1	..	1	4	..	..	..	1	2	17	2.51
Politician.....	..	1	6	1	2	5	10	7	6	10	2	4	54	7.95
Teacher.....	5	16	10	1	5	12	21	16	14	18	6	5	129	19.00
Peasant.....	55	25	35	13	6	23	60	31	22	26	12	17	325	47.87
Worker.....	..	13	11	..	2	12	13	9	..	4	2	4	70	10.31
Engineer.....	..	..	..	..	2	..	..	..	1	..	1	..	4	0.59
Physician.....	..	4	3	..	2	1	6	4	1	8	4	2	35	5.15
Soldier.....	..	..	..	..	..	1	4	2	1	..	1	1	10	1.47
Artist.....	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Merchant.....	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Lawyer.....	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Industrialist.....	..	..	1	3	1	2	1	2	..	..	..	..	10	1.47
Total Number of Cases.....	62	66	77	23	20	61	121	72	46	66	29	36	679	100.00

¹ Of lower category² Of higher category and liberal vocations (musician, dancer, journalist, etc.).³ Grammar school education only.⁴ Of a lower category (the highest the graduates of a secondary school).⁵ Of a lower category (the highest the graduates of a secondary school).⁶ Of a higher category (students of higher institutions of learning).⁷ Primary.⁸ Of secondary schools and professors of higher institutions of learning.

TABLE II
CLASSIFICATION OF OCCUPATIONS PLACED LAST BY THE DIFFERENT OCCUPATIONAL GROUPS

Occupations	Occupational Groups													
	Peasants	Workers	Independent Businessmen: I ¹	Merchants	Independent Businessmen: II ²	Public and Private Employees ³	Public Officials ⁴	Private Officials ⁵	Public and Private Officials ⁶	Teachers: I ⁷	Teachers: II ⁸	Soldiers	Total	Percentage
Artisan.....	..	..	1	..	..	..	..	1	..	1	..	..	3	0.58
Priest.....	8	20	13	3	5	15	27	15	5	21	10	5	147	28.38
Politician.....	6	6	5	2	4	7	21	4	14	4	2	6	81	15.64
Teacher.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peasant.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Worker.....	..	..	1	..	..	..	..	1	..	..	..	..	1	0.19
Engineer.....	4	1	..	..	1	..	1	1	..	..	..	..	8	1.54
Physician.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Soldier.....	2	7	10	2	1	1	6	4	3	6	3	2	47	9.07
Artist.....	6	6	7	1	1	4	8	5	4	3	2	5	52	10.04
Merchant.....	3	1	4	..	..	..	1	..	..	1	1	1	12	2.32
Lawyer.....	14	7	9	6	3	9	29	15	8	22	5	13	140	27.03
Industrialist.....	4	3	4	3	..	2	6	2	..	1	..	2	27	5.21
Total Number of Cases.....	47	51	54	17	15	38	99	47	34	59	23	34	518	100.00

¹ Of lower category.

² Of higher category and liberal vocations (musician, dancer, journalist, etc.).

³ Grammar school education only.

⁴ Of a lower category (the highest the graduates of a secondary school).

⁵ Of a lower category (the highest the graduates of a secondary school).

⁶ Of a higher category (students of higher institutions of learning).

⁷ Primary.

⁸ Of secondary schools and professors of higher institutions of learning.

tenths of the answers to the second question in our questionnaire seem to indicate that all occupations have their importance, we have discovered in many cases that some of the individuals were prejudiced against some occupations or at least had doubts as to their general usefulness. It is not our task to find out whether these judgments are justified; we are interested in attitudes and not in ethical evaluations. As typical of the antagonism of the peasants to the professions, we can consider their attitudes regarding lawyers, merchants, industrialists, and politicians when these last are looked on as corruptionists and grafters. We cannot speak, however, of a typical general attitude of the whole peasant group. For instance, the soldier and the priest are condemned by some and appreciated a great deal by others. As far as other results of this study are concerned, we refer the reader to the respective places in the text, especially to the importance of other determining factors.

Rural Educational Institutions and Social Lag

Roland R. Renne

IT IS an oft repeated fact that our ability to regulate and improve human relations has failed to keep pace with our ability to utilize inanimate substances and energies. This lagging of the societal arts behind technical progress has caused much human suffering and misery. The causes of this social lag are numerous and complex, but it cannot be denied that the administrative and financial organization within which our institutions operate is a very important factor contributing to increase or decrease this lag.

It may be true, as Laski points out, that institutions are but the necessary expression of the social order in which they are involved, and that educational institutions seek to discipline the younger generation to the ethos of the society concerned.¹ But careful analysis of some of our institutions, particularly our rural schools, will convince the student of social problems that they are not at present so organized and administered that they can do this effectively. Certain fundamental economic forces and great technological developments have caused profound changes in the structure and organization of industry and living in recent years. No such corresponding changes have been made in the administrative and financial machinery of our rural educational institutions to adapt them to these new forces and conditions, and to make it possible for them to serve present society effectively, or to put them in

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¹ See Harold J. Laski, "A New Education Needs a New World," *The Social Frontier*, II, (February, 1936).

a better position to serve future generations effectively under the conditions that likely will be established if present trends continue.

There are five principal shortcomings of the present system of administration and support within which the rural schools operate,² which account, in a large measure, for some of our present social maladjustments. These are: (1) unequal educational opportunities between rural and urban children and between children of different school administrative units; (2) unequal tax burdens between rural and urban taxpayers and between taxpayers of different school districts; (3) inadequate support for education, particularly during depression periods, and especially in agricultural districts; (4) failure to maintain economic balance between the various income-producing groups within the country; and (5) lack of the proper educational environment to teach effectively the social rather than the individualistic point of view. All of these result directly or indirectly from the present widespread system of local school support and administration and the almost complete reliance upon the general property tax. Unless these shortcomings are corrected, social lag will be increased in the future because the resulting maladjustments will be cumulative in their effects.

UNEQUAL EDUCATIONAL OPPORTUNITIES

A comparison of the length of school term, school facilities, and the training and experience of teachers of various school administrative units shows the existence of large inequalities in educational opportunities for children. The average length of school term for the United States as a whole was 172 days in 1933-34, the average for city schools being 184 days, compared with 162 days for rural schools. Nearly 16 million children had school for nine months and over; more than five million had terms of eight months; nearly one and one-half million, six to seven months; nearly a million, four to five months; and more than two million were deprived of any schooling.³ In 1932 the average

² While the data in this paper are largely for grade schools, nevertheless, many of the conditions and trends indicated are also applicable to rural high schools.

³ See "The Deepening Crisis in Education," *Leaflet No. 44* (Office of Education, U.S. Department of the Interior, Washington, D.C., 1933), p. 5.

number of days that the schools were actually in session was 171.2, or about eight and one-half months, for the entire country. In 10 states the average school term was 180 days or more; in 28, from 160 to 179 days; in eight, from 140 to 159 days; and in three states it was less than 140 days.⁴ But school terms are not uniform for the schools within a given state. In the case of Montana, for example, the average length of school term for the 2,643 grade schools operating in 1934 was 175.6 days, but 33 schools (all rural) held school less than 100 days, and 72 more (all rural) held school between 100 and 140 days.

Similar inequalities exist in the case of school facilities. The average value of school property per pupil enrolled in city schools in the United States in 1932 was \$353. In rural schools it was only \$143, or but 40 per cent as much. The value of city school property per pupil enrolled ranged from \$144 in Georgia to \$460 in New York, and the value of rural school property from \$47 in Georgia to \$460 in Nevada. In 12 states rural school property is valued at less than \$100 per pupil enrolled.⁵ In the case of Montana, 73 schools (all in rural districts) had no library books, and 97 others (all in rural districts) had libraries of less than 25 volumes. A total of 471 schools, of which all but 19 were in rural districts, had cross lighting, and 114 schools were held in shacks classed as "unsuitable for school use" by county superintendents.

Data showing the training and experience of teachers in rural and urban schools are not available for the United States as a whole. In the case of Montana, however, rural teachers are not so well trained or experienced as city and town teachers. Approximately 15.5 per cent of the grade school teachers employed by first- and second-class districts⁶ had four years or more of college training, while in third-class districts

⁴ See the *Biennial Survey of Education in the United States, 1930-1932* (U.S. Department of the Interior, Washington, D.C., 1934), p. 11.

⁵ *Ibid.*, p. 43.

⁶ School districts in Montana are divided into four classes: (1) first class—with 8,000 or more people, employing a superintendent with at least five years' public school experience, controlled by a board of seven trustees; (2) second class—population of from 1,000 to 8,000, employing a superintendent with at least three years' experience, controlled by five trustees; (3) third class—population under 1,000, employing a principal, controlled by three trustees; and (4) rural districts—employing no principal or superintendent, under direct supervision of county superintendent, and controlled by three trustees.

12.6 per cent of the teachers had such training, and in rural districts only 7.5 per cent, or less than half the proportion in first- and second-class districts, had such training. Only three per cent of the grade teachers employed by first-, second-, and third-class districts had less than two years of college training, while 34 per cent of those employed by rural districts had less than two years of college work. Of the 542 grade teachers employed by first- and second-class districts for the school year 1935-36, and for which data showing their teaching experience are available, only nine, or 1.7 per cent, were teachers who had no previous teaching experience. Similar data were secured for approximately half of the teachers employed by third-class and rural districts, and 3.8 per cent of the teachers in third-class districts had no previous teaching experience, whereas 6.3 per cent of the rural district teachers were teaching for the first time. Of the total teachers in the state with no previous experience, four-fifths were employed by rural districts in spite of the fact that rural districts hire but about one-half of all the grade teachers employed in the state.

One of the main reasons why rural teachers are not so well trained or experienced as city and town teachers is that many of the small, poor rural districts cannot pay the salaries which the larger, more thickly populated and wealthy districts can and do pay. The average salary paid school teachers in the United States during the year 1933-34 was \$1,050, and the average paid city teachers was \$1,416, while that paid rural teachers was \$750.⁷ In the case of Montana, the average salary paid grade teachers in first-class districts in 1933-34 was \$1,441, that paid teachers in second-class districts, \$1,129, in third-class districts, \$1,031, and in rural districts, \$639, or but 44 per cent as much as in the first class.

In the face of the above inequalities in educational opportunities between rural and urban areas, is it possible for our rural children, who will be the rural leaders (state legislators and county officers) of tomorrow, to keep pace in their thinking and their attitudes with the needs of a changing society? And because of these unequal opportuni-

⁷ "The Deepening Crisis in Education," p. 6.

ties for many rural children who will later migrate to the cities and become workers in industry and business, will there not be a considerable lag in the time social adjustments are needed and the time they will understand and appreciate how and what adjustments should be made? These adjustments may be urged or adopted by many leaders who have had better educational opportunities, but if the masses are poorly educated and not well informed generally, how prompt and complete will such adjustments be?

UNEQUAL TAX BURDENS

Schools in most of the states are supported largely by local taxation, as can be seen from the following proportionate amounts of the total revenue received from various sources in 1932: federal aid, 0.4 per cent; state, 19.9 per cent; county, 8.9 per cent; and local, 70.8 per cent. This large reliance upon local taxes, comprising as much as 95 per cent of the total school revenue in some states and more than 98 per cent in the case of Kansas, makes the burden of supporting the schools fluctuate with general conditions and taxable valuation in each of the small local communities. There are more than 127,000 school districts of varying size and wealth in the United States, and consequently the chances for inequalities in tax burdens between taxpayers in the same county or parts of the same county are greatly enhanced by this extreme decentralization of administration and support.

Montana illustrates quite well the inequalities in school burdens which may result from a combination of extreme decentralization of administration and a heavy reliance on local taxes. The state is divided into 2,116 school districts, and the taxable valuation per census child⁸ varies between districts from \$122,260 to \$60, the average being \$2,141. A total of 404 districts, or nearly one-fifth, had taxable valuations of less than \$1,500 per census child in 1934, while nearly this same number (393) had more than \$6,000, or over four times as much. A levy of 20 mills on \$1,500 of taxable valuation would yield only

⁸ Property in Montana is taxed on a percentage of its full and true value, varying with the kind of property according to the classified property tax law effective in 1919. Taxable value is equal, on the average, to about one-third of the full and true value.

\$30 per child, whereas the average operating cost per grade school pupil for all districts in Montana in 1934 was \$70.47. Consequently, these 404 districts have a taxable valuation far too small to support schools adequately without confiscatory levies. An additional 780 districts had taxable valuations of between \$1,500 and \$3,000 per census child, which is not enough to support schools adequately without other aid.

The effects of these inequalities on the distribution of school tax burdens can be seen from the variation in school millage levies in the different districts. In 1934, district levies varied from none to 68 mills. More than two-fifths (889) of the 2,116 districts had levies of less than 10 mills; 125 of these had levies of less than 2 mills, of which 86 made no levies at all, and about 200 had levies of from 2 to 5 mills. On the other hand, 980 districts had levies of from 10 to 20 mills, 180 of from 20 to 30, and 67 districts had levies in excess of 30 mills.

Much of this variation between districts in Montana in their ability to support schools is due to the method of allocating public-utility taxable valuations. Nearly one-half of the districts (1,034) have no public-utility taxable valuation, all but four of these being rural districts. On the other hand, 287 districts (none rural) have over \$100,000 public-utility taxable valuation, five of which have over \$1,000,000 each. Public-utility taxable valuation makes up over 80 per cent of the total valuation in 43 districts, and in seven of these it comprises over 90 per cent. Some very small districts, with few or no children, whose boundaries parallel a railroad have large public-utility allocations, enabling them with a high taxable valuation per child to levy very low taxes to support their schools. Other districts adjacent to these get no public-utility allocations although they may ship more produce over the railroad and also have more children to educate. These districts must levy much higher taxes on their land and other property to support their schools. In 1934, the average school-district levy, in those Montana districts having none or less than 25 per cent of their total taxable valuation in the form of public-utility taxable valuation, was 12.7 mills; in those districts with from 25 to 50 per cent, 12.9 mills;

in those with from 50 to 75 per cent, 10 mills; and in those with over 75 per cent, 6.7 mills.

Enlarging the tax base for school support by increasing the size of districts, i.e., decreasing the number of districts, or changing the taxing unit from the local district to the county or state obviously would eliminate many of these inequalities in school tax burdens. Under the present system of district administration the poorest districts are taxed the heaviest, which in turn makes them still poorer and less able to provide good schools as time goes on. Thus the spread between the wealthier areas and the poorer sections tends to widen. The undesirable social consequences of such a tendency are obvious. Yet only very feeble attempts have been made in most states to reduce these inequalities materially. In the case of Montana, only 542 of the 2,116 school districts received any equalization-fund aid from the state in 1934, and only 205 of these received an amount equivalent to what would be raised by a levy of 10 mills on the property within their own districts. Thus, the average aid given the majority of districts is extremely small and not enough to reduce materially the present inequalities in school tax burdens and educational opportunities between districts.

But, granting that changes were made in the system of financing schools to equalize burdens within a state, rather large inequalities would still exist between property owners in different states because of the concentration of wealth in industrial areas. For example, the average wealth per school child for the United States as a whole is \$10,200, while that for 12 Southern States is \$4,900, or less than half as much, Mississippi having only \$3,600 per school child while some industrial states have as high as \$28,000. When put on an annual-income rather than a taxable-property basis, similar inequalities exist. The average annual income for the country as a whole is \$2,171 per school child, while that for the 13 Southern States is but \$872. Industrial states such as New York, New Jersey, and California have more than six times as much annual income per school child as Mississippi.⁹

⁹ Data quoted from "School Money in Black and White," recently published by the Julius Rosenwald Foundation, by Roscoe Pulliam in "Economic Depletion and School Finance," *Educational Administration and Supervision*, XXII (February, 1936).

But all states of the South except one are spending more for schools, in proportion to their total income, than the Northeastern and North Central industrial states. Before any considerable equality in school tax burdens and in educational opportunities between different states can occur, a significant portion of the school revenues must be secured from federal taxes. At the present time the amount of school income received from federal sources makes up less than one-half of one per cent of the total school revenues.

INADEQUATE SUPPORT FOR EDUCATION

Thus far we have noted how the present administrative and financial machinery, or institutional setting within which our schools operate, causes great inequalities in educational opportunities and tax burdens between communities, particularly between rural and urban areas both within and between states. These shortcomings have a significant bearing on social lag in a democracy where the continuance of good government and social progress depends upon a well-informed and responsible electorate. But these inequalities might still exist and yet the total financial support for schools as a whole be fairly adequate. This is not the case, however, and the institutional setting referred to above is largely responsible.

It is a widely observed fact that during the present depression, when governmental spending has been increasingly heavy and has been offered as a means of pulling us out of the slough, spending for schools has been seriously curtailed. This is not because our citizens think it dangerous to support the schools during a depression, or that they feel the educational service is any less desirable than many other public services. As a matter of fact, they probably will tell you they believe education is absolutely essential and that it is more important than many other public services.

This apparent paradox is explainable only if we analyze the methods by which the various public services are financed. In the case of such services as roads, conservation and development of natural resources, the army and navy, and recovery and relief, the costs are met either

through bond issues and taxes secured later to pay off the bonds, or, through tax revenue secured currently by varied and indirect means. These include the tariff, various excises, personal and corporate income taxes, and other taxes, most of which are characterized by a rather circuitous or not easily traceable route from the taxpayer's pocket to the support of the public service in question. In contrast to this, four-fifths of the total school revenue is raised by the little local district or county from general-property tax levies. In some states as much as 98 per cent is so raised. Even in some states where the state government contributes considerable for school support, this revenue is raised from a state-wide millage levy on general property. Less than one-half of one per cent of total school revenues is raised by the federal government, the agency which uses most extensively indirect taxation or more flexible taxes based on net income. Thus, the support of schools is local, personal, and direct, and it is a sociological fact that the more direct and easily traceable the route of the tax dollar from the taxpayer's pocket to the support of the particular governmental enterprise, the more likely is that enterprise to be criticized or curtailed when economic conditions pinch ever so lightly.

This whole problem of financial support of our educational institutions is, then, a matter of primary versus secondary group relationships carried into the field of public finance. Unless and until more of our school revenue is secured through indirect or secondary-group means, the financial support of our educational institutions will lag behind that for many other less essential public services, with resulting serious social consequences. This will be particularly true in rural communities where the means of support is peculiarly direct and personal, and where a combination of factors noted above already makes it difficult to maintain educational opportunities comparable with those available in the more highly industrialized and urban areas. The example of what occurred in the closing of schools in Kansas during the depression, where more than 98 per cent of the total school revenue is raised through local district levies, is a case in point. During the school year 1933-34, some 700 rural schools were not opened in that state because

of lack of funds.¹⁰ Consider the fate of our highways today, if they were still financed largely by local or county levies on general property. The large decrease in local levies for roads in the last few years—in many instances reduced to zero—would have been strongly urged regardless of whether federal and state aid and the less direct means of assisting in the financing of construction and maintenance of the highways had increased to the level it has. And, it is inconceivable to think that the amounts currently spent on roads would be raised by the local district levies which were formerly the main source of support. Are not our schools, charged with the duty of training the future citizens of the state and nation, as important as our roads?

FAILURE TO MAINTAIN ECONOMIC BALANCE

The present system of financing schools, with its emphasis upon general property taxes, also tends to create and increase a lack of balance between various producing groups within our society, and thus increase economic and social maladjustments. The purpose of a good tax system is twofold: (1) to obtain revenue, in the most efficient manner possible, for the support of certain services considered desirable and which can be better administered and financed by group action; and (2) to maintain a balance between producing and consuming power within a country so that unemployment, unused factories, and other such serious maladjustments do not occur or are kept at a minimum. To do this requires a system of taxation which makes each citizen pay for the support of public services largely in proportion to his ability to pay. The general property tax, the principal and, in many areas, practically the sole support of the schools, does not do this.

In more primitive times, before much invention of laborsaving devices and the resulting division of labor and specialization, property owned was in the form of tangible goods and undoubtedly was the best single indicator of ability to pay. But as the corporation sprang into being, an effective means of acquiring the large amounts of capital and management required to reap the advantages of modern machinery

¹⁰ "The Deepening Crisis in Education," pp. 8 ff.

and large-scale outputs, and the essential credit and financial machinery was perfected to make possible the indirect or roundabout production process, a new type of property decidedly intangible came into existence. Today liquid claims (bank deposits, cash surrender values of life insurance companies, and stocks and bonds) constitute about two-fifths of the total national wealth of the United States. And what is more significant is the fact that the net proportionate addition to liquid claims in the decade 1922 to 1932 was greater than the entire increase of liquid claims during the first century and a half of the life of the country.¹¹

Naturally this wealth has tended to centralize in the more industrial and urban areas, and the centralization has been far out of proportion to the corresponding centralization of population. Money and ability to pay have been drained from the small rural and unindustrialized communities to become spending power elsewhere. The belief that for every dollar that goes out of a local community for automobiles, tractors, machinery, etc., another dollar comes back for wheat, cotton, hogs, etc., is based rather naively on the assumption that a freely competitive system and equilibrium economics exist. Even a very superficial survey of the way prices of different kinds of goods are determined today will prove the fallacy of this reasoning. Compare the controlled or administrative prices of certain industrial products with the individualistically competitive prices of agricultural products. The lack of parity between industrial and agricultural prices which has resulted is the basis for the present administration's agricultural program.

To continue financing our rural educational institutions through small local communities and the general property tax is primitive and antiquated. Not only do our rural, and the poorer of our urban, areas fail to have the educational opportunities of the more wealthy industrial areas, but they are also continually taxed more in proportion to their ability to pay, with the result that the relative purchasing power of farmers and citizens in the lower income levels is continuously depleted.

¹¹ See A. A. Berle and B. J. Pederson, *Liquid Claims and National Wealth* (New York, 1934).

The social consequences of such depletion have been quite obvious in the last few years. A tax system based largely on ability to pay is the most effective and reasonable means of preventing such tendencies. The fact that the types of taxes which must be applied to get intangible property to pay its share for the support of public services are usually very difficult and uneconomical to administer, except on a state-wide or federal basis, is another argument for changing the size of the basic unit for the support of our schools.

LACK OF PROPER EDUCATIONAL ENVIRONMENT

From earliest times adults have made some more or less formal effort to prepare their young folk to take over the machinery and processes of society. In primitive times this training process was largely through play and through actual participation in the serious work of the adult group. But as the size of the social group increased and the processes of production and distribution became more complex, there was more to be learned and so a longer time and more conscious effort and special training were required to teach the young effectively. It can be said, therefore, that education, which is a necessity of life because it is the means of adapting the individual to his environment and to the solution of problems that have to be met, is influenced by and, in fact, dependent in its subject matter and methods upon the structure and aims of the society in question. The children must be taught to think and act through a school environment which will duplicate as much as possible, or at least approach in some manner, the conditions of living which they will actually encounter when their formal training period is completed. It is the contention of the writer that those conditions are now, and will be in the future, vastly different from what they were in our fathers' generation, and that our institutions, particularly our schools, must be changed accordingly if we are to keep economic and social maladjustments to a minimum.

The concentration of control in American industry to the point where 200 of the largest corporations now control 55 per cent of all the indus-

trial wealth (excluding banking) of the United States,¹² and where in some lines such as certain fields of manufacturing and retailing almost all the business is done by corporations,¹³ means that hundreds of thousands of producers and workers have been coördinated under the management of a single executive or administrative board. Our entire way of living—of producing, buying, and selling—has tended more and more toward action in larger and larger groups, the secondary or impersonal relationships continually displacing the primary, face-to-face relationships.

It is not the intent of the writer to dwell at length upon the social implications of this process. It is sufficient to point out the economic and social instability which accompanies it, the increase in divorce and suicide rates, the demand for large increases in federal expenditures for relief, recovery, and public welfare at the same time that drastic reductions are demanded in local taxes and services. These are social problems which must be met successfully if society is to advance. But living and working in larger and more impersonalized groups mean that human beings must learn to think and act in larger and more impersonalized groups. Is not the school the logical place to teach them to think and act thus, since the school plays an increasingly important place in our children's training for life? Are our schools, operating within the present administrative and financial machinery, providing the training and the environment which will do this? Among the 127,000 school districts of the United States are thousands of small, inadequately supported, poorly equipped schools which have extremely small enrollments. There are between 7,000 and 8,000 schools maintained for five pupils or less, 250 of these each operating for one bewildered child, 750 for two children, 1,500 for three, 2,250 for four, and 3,000 for five.¹⁴ These enrollments are for the first eight grades, which means that in

¹² See A. A. Berle and G. C. Means, *The Modern Corporation and Private Property* (New York, 1933).

¹³ See H. W. Laidler, *Concentration of Control in American Industry* (New York, 1931).

¹⁴ See W. H. Gaumnitz, "How Small Are Our Small Schools," *School Life*, XX (May, 1935).

most cases there is but one child per grade and several grades with none. An additional 16,000 schools have enrollments of seven or less, and 52,000 more have 12 or fewer.

The numerous school districts, relics of pioneer days, are usually too small to represent any community of interest. Instead of helping to draw the citizens of a given trading center or community closer together as a unit, they actually split up a natural economic and social unit into several jealous, independent groups. Numerous incidents can be related as evidences of the antagonisms aroused over petty differences in school districts, and of how jealously small districts guard their control over the school. For example, in the hiring of a teacher it is sometimes required that she have one or two children. This enables the district to operate a school and prevent abandonment of the district by the county superintendent, who has authority in some states to abandon districts after a certain period has elapsed in which no school has been held.

Local interest in schools is indeed desirable, but when carried to such extremes it emphasizes the worst phases of extreme individualism and selfishness. Can children in such an environment develop adequately the attitudes and ways of thinking and acting which they will have to develop to orient themselves in the comparatively large, impersonalized group activity which characterizes a more socialized society? Will the children in these one-, two-, three-, four-, and five- pupil schools be well trained and equipped to take their place in such a society, when the clash of minds so necessary to the development of reasoning power or mental alertness and a broad and more cosmopolitan point of view is so completely lacking?

SUMMARY AND CONCLUSIONS

It is not the intent of the writer to convey the impression that the present administrative and financial machinery within which our schools operate is the cause of all the ills of our present social system, or that it is all that is wrong with our schools. It is, however, a very important factor, and no matter what advancements are made in the field of

education and learning, these cannot be made universally available within our present poorly financed and uncoordinated system. Larger areas of administration and support and a more diversified tax base would do much to remove present weaknesses. Any service so vital as education to the life of the state, or the people as a whole, is vested with a peculiar public significance and cannot safely be left to be performed by private enterprise, or by any such minor unit of government as our average small school district.

The corporation and the conduct of business and living in larger, more depersonalized groups have arisen with recent technological development and through an evolutionary process have definitely proved their survival value. The ever-widening sphere of social intercourse and contacts of the individual which accompany technological progress will probably preclude any considerable swing back to smaller and more personalized business units, at least for the present. Will this same process of survival of adapted units carry over into our social institutions? This, of course, remains to be seen, but recent data on school consolidations and transportation of pupils indicate a tendency in this direction in our schools. There were 17,248 consolidated schools in the United States in 1934, 400 of these being established in the school year 1933-34. During that year 2,794,724 pupils were transported in 77,042 vehicles provided at public expense. This is more than three times the number transported a decade earlier. The average annual cost per pupil transported has gradually decreased from \$35.38 in 1923-24 to \$19.29 in 1933-34.¹⁵ Similar progress has not yet been made, however, in the method of financing schools by more diversified taxes and increased federal aid.

The process of adaptation of our school system to our present modern environment is far from complete, as the data in this paper show. It is vital that the adaptive process suggested be speeded up, so that the five principal shortcomings resulting from the time lag in adjustments in the administrative and financial machinery of our schools be eliminated

¹⁵ See David T. Blose, "Some Consolidation Statistics," *School Life*, XXI (1936), pp. 223 ff.

or their undesirable social consequences reduced to a minimum. Not until this lag is reduced appreciably can we expect our schools, particularly in rural and less industrialized areas, to train our children adequately so they can orient themselves satisfactorily in our modern environment, much less to perform the leadership our educational institutions should perform in pointing toward, and assisting in securing, a better social order.

Some Characteristics of Rural Families on Relief in New York State

W. A. Anderson

THE PURPOSE of this paper is to indicate some of the characteristics of rural families on relief in New York State. These characteristics should suggest principles from which social policies can be formulated for efforts at rehabilitation. Rural families on relief are economically dependent upon society, but for definite reasons. There are some common characteristics that mark the relief family type.

Likewise, after this depression is over, the problem of aiding rural families who need assistance will not have been forever solved. To give permanent record to those characteristics that mark families who must have aid in periods of economic stress may assist in meeting future situations, or aid in preventing such conditions on so wide a scale.

The data presented are a summarization of three separate studies of relief families conducted in rural New York State by the department of rural social organization of Cornell University in coöperation with the Division of Research, Statistics, and Finance of the Federal Emergency Relief Administration.

All of the information was obtained by the use of schedules prepared by the Division of Research, Statistics, and Finance of the Federal Emergency Relief Administration. They were DRS-3 C, "A Survey of Rural Families Receiving Relief in October 1933," DRS-77, "Survey of the Rural Relief Situation in October 1934," and DRS-2, "Survey of Rural Relief Families for a Rehabilitation Program."

The relief cases selected for study were those found on the public relief rolls of the respective townships and counties at the time of study.

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The total number of cases included is 2,293. Of these, 264, 11 per cent of all, were in the first study made in Tomkins and Wayne counties; 1,278, 56 per cent of all, were in the second study made in four other counties; while 751, 33 per cent of all, were selected from 17 counties.

No attempt has been made to consolidate by any weighting process the cases included in this study. The cases in each of the three studies were selected by a different sampling method, and since these methods were quite different, it was thought that to weight, by any arbitrary scheme, the various samples in order to compute general averages for the whole would introduce procedures that could not be defended and would give, perhaps, spurious results.

Furthermore, the averages and percentages of each separate study were so nearly alike, except in certain explainable cases, that they appear to have much more validity when allowed to stand alone than if they were thrown together into one sample by a weighting process.

PLACE OF RESIDENCE OF THE RURAL RELIEF CASES

Rural was defined in these studies as including all incorporated and unincorporated villages of less than 5,000 inhabitants and the open country. Families on relief in this rural territory reside in the open country in from 36 to 56 per cent of the instances, in villages of from 50 to 2,500 inhabitants in from 34 to 45 per cent of the instances, and in villages of from 2,500 to 5,000 residents in from 10 to 27 per cent of the cases. In other words, from four to six out of each 10 rural relief cases are open-country residents, and from four to seven out of each 10 are village residents.

In five counties of the state, not included in the afore-mentioned studies, of families on relief in the rural areas for the past two years, it was found that in June, 1935, 41 per cent of the 2,855 relief cases lived in the open country, while 59 per cent resided in villages. In October, 1935, 40 per cent of the 2,319 cases on relief lived in the open country, and 60 per cent lived in villages.

Thus, it would appear that the ratio of relief cases living in the open-country sections of New York State to those residing in the villages is about two to three.

The proportion of families residing in the open country or in villages varies with the type of county. But emphasis is usually placed upon families residing in the open country when considering the rural relief situation. In New York State, however, the proportion of families requiring relief aid appears to be larger for villages than for the open country. When relief and rehabilitation programs are developed, this must be recognized and the needs of village families must not be overlooked.

THE SIZE OF THE RELIEF FAMILY

Rural relief families contain, on the average, about one more person than is found in the families of the general rural population. This larger size of the relief family is one of the factors associated with the presence of the family on the relief rolls. Likewise, the relief families contain six or more members in about 30 per cent of the cases. Rural families in the general population of New York State contain six or more members in 16 per cent of the cases. Thus, relief families contain six or more members in twice as many instances as do all rural families. This factor, of larger numbers of persons in the family than can be cared for by the bread-winner's earning capacity, is directly related to their presence on the relief rolls. Smaller families might make it less necessary for many cases to require public assistance, and when, in emergency, public help was needed there would be less drain on the public purse.

From eight to 14 per cent of the cases on relief were single persons. The households in the general rural population are one-person households in 10 per cent of the cases. The single persons on relief are, in the main, old persons (widows, widowers, and others who had never married) who had no savings from their work, or had depleted them, who were out of work or unemployable because of physical and mental defects. This type of case cannot, in most instances, be rehabilitated.

They must be cared for by the community. They constitute a real part of the permanent relief group.

CHILDREN IN RELIEF FAMILIES

Not only are relief families large, but they contain a significant proportion of dependent children less than 16 years of age. In the Tompkins-Wayne and the four-county studies, 48 per cent of all persons in the relief families were children less than 16 years of age. If all the one-person cases were eliminated and only true families included, the proportion of persons less than 16 years of age would be still greater.

Of the total rural population of New York State, 29 per cent are less than 16 years of age. Thus, there are about 160 children less than 16 years of age in these relief families to every 100 children less than 16 years of age in the total rural population.

Of the 2,682 children in the relief families, where the age of each child was obtained, 2,121 (79 per cent) were less than 16 years old, 526 (20 per cent) were from 16 to 29 years of age, while 35 (one per cent) were over 30 years of age. Thus practically eight out of every 10 children in the relief families were less than 16 years of age, and, therefore, dependent on the family heads.

Among the influences of the depression, with its consequent relief program, none are probably of any greater importance than the effects upon these children. These effects are not only physical and material, but, perhaps more important, they are psychological. Attitudes toward relief, toward work, toward people, and life in general are being developed which will be lifelong in effect. Under the circumstances, it is important that these children be aided to function as normal members of society. Not only must they be provided with food, clothing, medical aid, and other physical necessities in a manner which does not carry stigma, but they should be kept in school and assisted to carry on normally, particularly since relief families are likely to lack strong traditions of schooling.

THE AGE OF THE HEADS OF RELIEF HOUSEHOLDS

The character of families on relief in rural areas is indicated, likewise, by the ages of the heads of the households. It is commonly assumed that these families are likely to be the older families. In fact, however, the families are fairly young. The average age of the heads of the households in the Tompkins-Wayne study was 41.3 years while in the 17-county study, it was 45.2 years.

The heads of families were between 18 and 50 years of age in over six out of each 10 cases. In about four out of each 10 cases they were 50 years of age or over.

These families are, in the majority of instances, in the period when they should be most productive. It is not a case of inability to work, but of the inability to find work that has put them on the relief rolls. This inability to find work may lead, through idleness, to an adverse attitude toward work. One of the dangers of the situation is the development of the attitude that people can get along without working. A program that emphasizes valuable work is necessary to avoid such a consequence.

THE SEX OF THE HEADS OF THE RELIEF FAMILIES

In from 80 to 90 of each 100 of the families the head was a man, but in 10 to 20 of each 100 families the head was a woman. In other words, it appears that rural families on relief are broken families in from 10 to 20 per cent of the cases. Where there is no male head the difficulties of support are greater, and the chances that public aid will be needed are increased.

In each of the three studies, a larger proportion of the village than of the open-country families on relief were without a male head. The open-country family that has lost the help of the father seems to be able to care for itself more successfully than the village family in the same circumstances, and there is a larger relative concentration of broken families in the villages than in the open country.

THE USUAL OCCUPATIONS FOLLOWED BY MALE
HEADS OF RELIEF FAMILIES

The type of occupations followed by the heads of families is important in determining whether the families may eventually need relief. Not more than one-fourth of the heads of relief families in rural areas were in farming occupations, and of these fully one-half were not farm operators, either owner or tenants, but were farm laborers. Only one in 10 of the rural families on relief owned and operated a farm as their usual occupation. The farm laborer in agriculture is somewhat comparable to the unskilled worker in industry and he is more liable to need aid than an operator. The rural relief problem, at least in New York State, is not one of caring for large numbers of families made economically dependent by agriculture. The farming population, especially farm operators, have been able to meet the depression situation in other ways than through public relief.

Fully three-fourths of the male heads of rural relief families followed industrial activities or had no usual occupation. Of these, about one in a hundred were professional or proprietary workers. From 10 to 15 per cent of them followed skilled trades, while 40 to 60 per cent were unskilled laborers. From 15 to 20 per cent of these family heads followed no usual occupation. They depended upon supporting themselves from odd jobs and casual employment. This group contributed largely to the chronic relief population.

The type of occupational activity responsible, therefore, for the large proportion of families on relief, was unskilled labor. It is the farm laborer and the unskilled industrial worker who have been forced upon public relief, and they, with the chronically unemployed and unemployable, make up the rural relief population.

Not only was the proportion of bona fide farmers on the relief roll small, but the proportion of the male heads of rural relief families who had never had any experience as farmers was large. In the Tompkins-Wayne study and the 17-county study, 61 per cent and 73 per cent, respectively, of the male heads had never had any experience as farmers.

Rehabilitation for them must take place through occupations other than farming. In fact, since most were unskilled workers dependent upon industry for jobs, rehabilitation would seem to depend almost wholly upon the revival of industrial activities or the development of public works projects employing unskilled workers.

NATIVITY OF THE FAMILY HEADS

Heads of families in the rural relief population are native-born in 85 to 90 per cent of the cases. In about one in each 10 cases the family heads are foreign-born.

In 1930, there were in the rural population of the state, defined as including, in general, residents in the open country and in villages of 2,500 or less population, 7.6 per cent foreign-born persons. The studies of the rural relief population included, besides those residents in the open country and in villages up to 2,500 inhabitants, those residents in villages of from 2,500 to 5,000 population. If the foreign-born population who lived in these villages was added to the 7.6 per cent above mentioned, about 10 per cent of the foreign-born population of the state would be found residing in the area sampled in the relief studies. It would appear that the foreign-born population of the rural areas, then, does not contribute a larger proportion to the rural relief population than it constitutes of the total population. Certainly the contribution is not so much greater as to attract attention. Families of foreign-born persons do not contribute abnormally to the relief load of the rural areas.

EDUCATION OF THE FAMILY HEADS

The heads of rural relief families are not well equipped educationally. The average number of school grades completed by those in the Tompkins-Wayne study was 6.0, while those in the 17-county study had completed 6.8 grades. Over eight out of every 10 of them had completed only grade school or less, while between 15 or 20 per cent had attended high school, a small proportion of whom graduated. One per cent of these heads of families had some college or professional school training, but none of them were college graduates.

Though one cannot say that lack of schooling was the factor that made them require public relief, the limited education possessed by these family heads made it decidedly difficult to make vocational adjustments, for their range of occupational activities was narrow.

THE TYPE OF RELIEF RECEIVED

The type of relief received by the families at the time these three studies were made, indicates that in 1933 and the early part of 1934, direct relief was the major form of assistance given rural families. Thus in October, 1933, Tompkins and Wayne counties gave direct relief only to 86 per cent of the families. Then works projects under varying sponsors began to appear and in the 17-county study only 40 per cent received direct relief as of October 1934, while 48 per cent received work relief only.

But even as late as October, 1934, four out of each 10 of the families in the 17-county study were receiving direct relief only. Among those receiving direct relief, there were many who were unemployable for various reasons, such as incapacity, age, and the like, yet a large number were employable.

THE NUMBER OF YEARS ON RELIEF

Of the families studied in Tompkins and Wayne counties as of October, 1933, 12 per cent, and of those studied in the 17 counties as of October, 1934, 14 per cent had received relief four or more years; that is, they were receiving aid from public relief agencies in 1930. Information was not obtained for the years prior to 1930 in the 17-county study, but in the Tompkins-Wayne study, one in each 10 families receiving aid in October, 1933, had received relief help before 1930. It appears from all the data available that not more than one in each 10 rural families on relief in October, 1934, had been on public relief before the depression period. These are undoubtedly the chronic relief cases.

After 1930, however, the proportion of the families receiving aid each succeeding year increased. In the Tompkins-Wayne study, where

a four-year span was covered, four of each 10 families had received aid only the one year, that is, in 1933, but in the 17-county study, where a five-year span was covered, only one in each three had received aid the one year, that is, in 1934. In both studies, one in three families had received aid two years, while 13 per cent in Tompkins-Wayne, and 21 per cent in the 17 counties were aided three years. As the emergency period lengthened, an increasing proportion of the families required assistance.

SUMMARY

If, then, these facts be summarized, the following are some of the chief characteristics of the rural families on relief in New York State:

Families on public relief in the rural areas of New York State reside in villages and in the open country in ratios of three to two. Rural relief problems in this area, therefore, are more problems of village residents than of open-country residents.

Rural relief families are larger than the families in the general rural population by one person on the average. This larger number of persons to support is a factor in placing them on relief.

Rural relief families contain about 160 children less than 16 years of age to every 100 children of the same age in the general rural population. The effects of relief programs and depression conditions upon them is of major significance.

The average age of the relief family heads is between 40 and 45 years. They are in what should be the most productive period of life, but inability to find work, more than inability to work had forced them into idleness and upon relief.

The head of the family was a man in 80 to 90 out of each 100 cases. But from 10 to 20 of each 100 families were headed by a woman. In most of the latter instances this means a broken family, either through death, desertion, or divorce.

The male heads of rural relief families are largely unskilled workers from industry—industrial backwash. In addition, there are farm laborers and a small group who have no usual occupation.

Heads of rural relief families are not farm owners or operators, except in about one in 10 cases. Nor have these family heads ever had farming experience. Foreign families in rural areas contribute no larger proportions of persons to the relief rolls than they constitute of the total population.

Schooling is decidedly lacking among the relief population, the average number of school grades completed by the family head being six.

Direct relief in the form of food orders, clothing, and money constituted the chief aid given these families.

The relief history of the families showed increasing proportions are remaining on the relief rolls, year by year, since 1930.

Some Observations on Oklahoma Population Movements Since 1930

Robert T. McMillan

RECENT population movements in Oklahoma have been motivated largely by such economic forces as the drouth; unemployment in exhausted oil fields, coal, lead and zinc mining areas, and urban centers; and the low prices for farm products. In the mixed trends resulting from the processes of economic readjustment, agriculture has had to accept the residual elements of the population. This is true for the period covered by the depression and it may be expected to continue in the immediate future.

The data for this discussion were taken from the 1930 and 1935 Censuses of Agriculture, annual state school enumerations, information gathered in the rural relief population studies of the Federal Emergency Relief Administration, and personal observations of the writer gained from traveling since 1930 in 70 of the 77 counties in Oklahoma.

During the period from 1930 to 1935 there has been an exodus of farm population from southwestern counties. (See Map 1.) Two explanations of this movement may be offered. First, the excessive drouth of 1934 preceded by two years of below-average rainfall greatly reduced cotton production. Second, farm labor has been displaced by the growing use of mechanized farming methods. Low prices for cotton have caused farmers to substitute "sledding" for hand-picking. Furthermore, tractor farming has led to larger farm units and subsequent savings in labor costs.¹

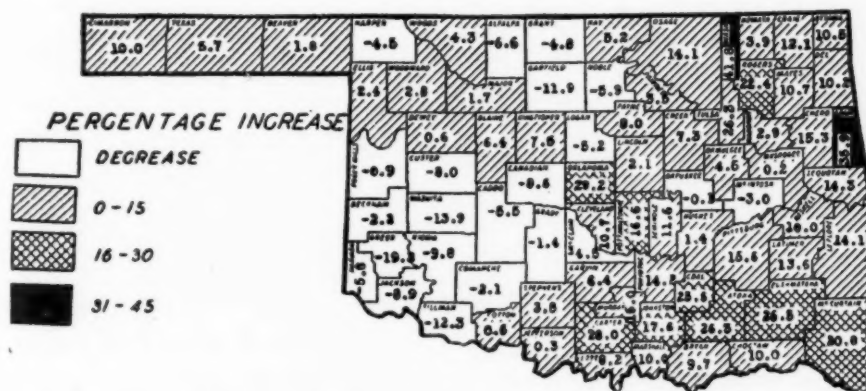
Robert T. McMillan is assistant state supervisor of rural research in Oklahoma for the Works Progress Administration.

¹ For discussion of this point see P. H. Stephens, "Mechanization of Cotton Farms," *Journal of Farm Economics*, XIII (1931), 27-36.

TABLE I
PERCENTAGE CHANGES IN AVERAGE ACREAGE PER FARM AND IN NUMBER OF
FARMS IN FOURTEEN SOUTHWESTERN OKLAHOMA COUNTIES, 1930 TO 1935

County	Percentage Increase in Average Acreage Per Farm	Percentage Decrease in Number of Farms
Total.....	11.33	7.4
Jackson.....	13.96	8.9
Tillman.....	11.28	12.3
Harmon.....	15.53	5.8
Greer.....	20.69	19.2
Commanche.....	1.27	2.1
Kiowa.....	19.95	9.8
Backham.....	12.27	2.2
Washita.....	20.41	13.9
Roger Mills.....	4.96	.9
Custer.....	7.70	8.0
Caddo.....	10.42	5.5
Grady.....	2.95	1.4
McClain.....	7.28	4.5
Canadian.....	8.83	8.6

The data in Table I show that substantial increases in the average size of farm units have occurred in the southwestern Oklahoma counties which experienced decreases in the number of farms between 1930 and 1935.



MAP 1. Percentage Changes in the Number of Farms in Oklahoma from 1930 to 1935.
(1935 Census of Agriculture.)

The regions to which the drouth-stricken population has migrated are not clearly evident from the data at hand. It is apparent from available information that, in some degree, refuge has been sought in eastern Oklahoma where wood and water are plentiful and land is abundant. No doubt the self-sufficing type of agriculture prevailing in much of eastern Oklahoma also attracts farmers whose resources have been reduced by mortgage foreclosure and scarcity of credit. However, observations give rise to the belief that part of the decrease of population in southwestern Oklahoma cotton counties has been due to migration from the state.

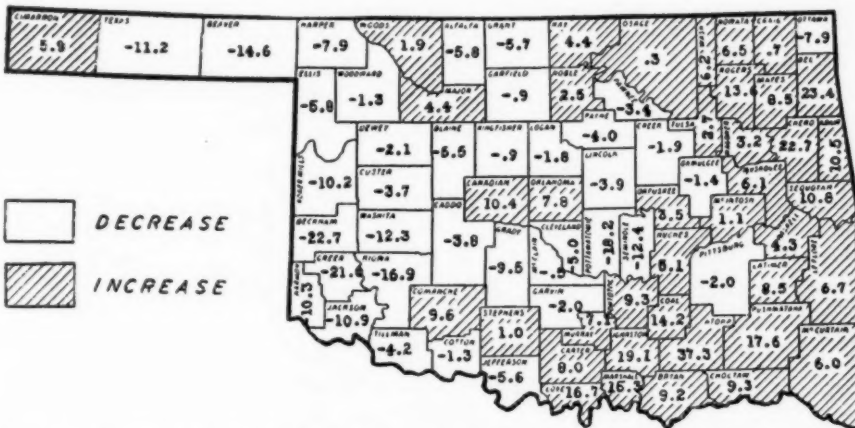
Large numbers of displaced oil-field workers and miners have moved back to the land. Increases in the number of farms in Osage, Washington, and Carter counties are probably attributable to an increase of unemployment in declining oil fields. In Pottawatomie, Seminole, Pontotoc, and Johnston counties, centers of current oil developments, the increases in farm population probably were caused by partially unemployed laborers being forced onto the land as part-time farmers in order to secure food, fuel, and housing at reduced money costs.

The counties having extensive mining districts suffered population losses from 1920 to 1930 on account of the general decline in the industry and the better opportunities for employment outside the region, but the depression may have modified this movement bringing about considerable settlement on farms within the counties involved.

A less pronounced trend is the back-to-the-land movement induced by unemployment in urban centers. In 21 of 29 counties containing cities which have a population of 5,000 and over, an increase in the number of farms between 1930 and 1935 is noted. However, oil and mining industries are located in one-half of these counties. Also, a strong countermovement has been under way for nearly a decade, the evidence of which may be viewed in the poorer sections of the cities. Shacks, crudely built from packing boxes or discarded galvanized sheeting gathered from the city dump-yards, rise like mushrooms to house the beggars of private and organized charities, and the sellers of porch

furniture, artificial flowers, needles and pins, etc. Much of this population is the backwash of the long depression in agriculture.

As another means of ascertaining internal migration, the annual school enumerations by counties were analyzed. Using Thorntwaite's method of obtaining the ratio of the school population in 1930 to the general population of the same year and applying the ratio to the 1935 enumeration, the population is estimated with what seems to be a reasonable degree of accuracy.² Map 2 shows the estimated per cent of net change in the population of the several counties of Oklahoma.



MAP 2. Estimated Per Cent of Net Change in the Population of Oklahoma from 1930 to 1935 on the Basis of Annual School Enumerations. (Sources: Federal Census of 1930 and Biennial Reports of the Superintendent of Public Instruction.)

Generally it corroborates the indicated trends of the farm population because of the rurality of the state. It goes even further by emphasizing movements of the non-farm population. For instance, in certain counties, particularly those where both extractive industries and agriculture are the bases of economic wealth, decreases in population are noted despite an increase in the number of farms. As might be expected, the proportional changes in population as measured by (1) the scholastic enumeration and (2) changes in the number of farms are not uniform.³

² C. Warren Thornwaite, *Internal Migration in the United States* (Philadelphia, 1934), pp. 38-39.

³ Incidentally, the proportion of persons of school age in the total population runs somewhat higher in counties devoted to self-sufficing agriculture than in other types of agricultural areas within the state.

Thirty-eight counties experienced losses in population according to estimates based on school enumerations, but the gains in 39 counties more than offset the decreases, leaving a net gain for the state of 14,256. Only one-third of the 27 counties having decreases from 1920 to 1930 revealed a continuation of the downward trend from 1930 to 1935. (Strangely enough, the counties sustaining the greatest losses

TABLE II
PERCENTAGE CHANGES IN POPULATION FROM 1930 TO 1935 IN COUNTIES
SHOWING DECREASES FROM 1920 TO 1930

County	Percentage Decrease 1920-30*	Per cent of Estimated Change 1930-35
Coal.....	37.4	+14.2
Johnston.....	35.0	+19.1
Atoka.....	30.3	+37.3
Sequoyah.....	27.2	+10.8
Marshall.....	24.9	+15.3
Choctaw.....	24.9	+ 9.3
Love.....	22.5	+16.7
Bryan.....	20.7	+ 9.2
Latimer.....	19.3	+ 8.5
Beaver.....	18.5	-14.6
Haskell.....	16.4	+ 4.3
Pushmataha.....	15.8	+17.6
Nowata.....	14.4	+ 6.5
Cherokee.....	12.1	+22.7
Grant.....	12.0	- 5.7
Ellis.....	9.7	- 5.8
McCurtain.....	8.3	+ 6.0
Cotton.....	7.4	- 1.3
Alfalfa.....	6.3	- 5.8
Ottawa.....	6.2	- 7.9
Craig.....	5.8	+ .7
McIntosh.....	5.6	+ 1.1
Murray.....	5.4	+ 7.1
Pittsburg.....	3.4	- 2.0
Garvin.....	3.2	- 2.0
Major.....	1.8	+ 4.4
Jefferson.....	1.5	- 5.6

* These percentages were taken from O. D. Duncan, "Population Trends in Oklahoma," *Bulletin No. 224*, Oklahoma Agricultural Experiment Station, Stillwater, 1935, pp. 32-34.

during the decade 1920-1930 have had the largest gains in the period since 1930. A partial explanation for this sharp reversal may be that the counties containing considerable quantities of marginal lands, or located nearest to cities or oil and mining centers, are the first areas to gain or lose population according to the vicissitudes of trade and industry.

Data on emigration are not available, but reports from transient relief camps confirm the belief that interstate migration is increasing. If newspaper reports are correct, California, Texas, Arizona, and other states are receiving large numbers of transient families who claim Oklahoma as their residence. It is also true that the Oklahoma Emergency Relief Administration has furnished transportation for the return of many families from these states. One county in central Oklahoma had 15 families brought home from New Mexico, Colorado, California, and other states. Eighty relief families left Harper County, in the drouth area, during the three worst months of dust storms in 1935. Approximately one-half of these families moved out of the

TABLE III
NUMBER OF RELIEF FAMILIES MIGRATING INTO SURVEY COUNTIES FROM
OTHER STATES DURING 1930 TO 1935*

Total.....	234	Louisiana.....	2
Texas.....	77	Nebraska.....	2
Arkansas.....	67	North Dakota.....	1
Missouri.....	20	New York.....	1
Kansas.....	17	Mississippi.....	1
California.....	10	West Virginia.....	1
Colorado.....	9	Michigan.....	1
Illinois.....	8	Idaho.....	1
New Mexico.....	5	Ohio.....	1
Iowa.....	3	Alabama.....	1
Arizona.....	3	Montana.....	1
		Tennessee.....	1
		Kentucky.....	1

* Data were taken from a study of 5,937 schedules secured in the "Survey of Current Changes in the Rural Relief Population" conducted coöperatively by the Research Section of the Federal Emergency Relief Administration and the Oklahoma Agricultural and Mechanical College. Assuming 4.5 persons to the family, 26,800 persons, or 1.12 per cent of the total state population, are included in the sample.

ment from counties along the eastern side of the state is less than from the central and western tiers of counties.

At this point it seems proper to discuss some of the characteristics of recent farm movements in Oklahoma. (Generally speaking, in depression periods farmward migration increases because of the extreme difficulty in making a living elsewhere, while people already on farms tend to stay there for the same reason. As soon as trade, manufacturing, and the extractive industries expand, large proportions of both the more aggressive and the more improvident elements of the population forsake the farm. In both movements, agriculture is at a distinct disadvantage from social and economic viewpoints.

As reported in the 1935 Census of Agriculture, there was a net increase of 9,459 farms in Oklahoma from 1930 to 1935, a percentage increase of 4.7. But the significant fact is that 5,094 of the new farms, or 53.8 per cent of the net increase, are in counties in which the average value of land and buildings per farm in 1935 was less than \$1,500. In 37 counties, with an average land and building value of \$3,000 or less, there was an addition of 10,914 farms. With two exceptions decreases in farms occurred in the counties having average valuations in excess of \$3,000 per farm.)

Further evidence of the strong tendency toward the spread of farming into the areas least capable of supporting more population, is shown in the claim made by the National Resources Board in Oklahoma that 25,336 farms would have to be eliminated from the counties gaining the 10,914 farms in the last five years, if the remaining farms in the area are to have average gross incomes from crops and livestock (based on 1930 Farm Census figures) equal to the state average.⁴ In all but six counties, of the 37 with a land and building value per farm of \$3,000 or less, some farms would have to be eliminated, based upon the arbitrary standard used in the calculation.

Several conclusions are reached in regard to the majority of "new"

⁴ *Extent and Character of Desirable Adjustments in Rural Land Use and the Most Effective Means of Obtaining Such Adjustments* (Washington: National Resources Board, 1935).

farmers in Oklahoma. Perhaps too much emphasis is placed on those people who are either at, or who are approaching, relief levels, but the generalizations apply to many of the non-relief population as well.

First, with few exceptions, the "new" farmers represent the poorest classes—the misfits, socially and economically speaking, in society. Social case workers from the relief agencies characterize these families as having a high incidence of venereal disease, skin and blood diseases, infestation of vermin, malnutrition, malaria and respiratory diseases, and, in certain localities, pellagra, physical defects such as neglected teeth, impaired vision, and malformation of bones. Also, the relief agencies have associated the weakened physical conditions of this population with a high frequency of marital discord, illegitimate children, illiteracy, and wholly unsatisfactory employment histories of the heads of many families. This segment of the population, unable to make a living in towns and cities, has retreated to the country where rent is cheaper, wood and water are free, and food is available by barter, in return for doing odd jobs, or as gifts from families having surpluses. Furthermore, social barriers in the open country are less exacting than in cities and towns, which gives relief families access to schools, churches, and other forms of community participation.

Secondly, the farms to which these families have moved are the poorest lands in the state. For the most part, they are heavily wooded, rough in topography, low in fertility, and subject to extensive soil erosion—from every standpoint undesirable for farming purposes.⁵

Thirdly, the "new" farmers are handicapped by a lack of capital and a shortage of human resources. They have very inadequate teams and equipment, if any; they have neither cash nor credit. On the human side, such resources as health, ingenuity, ambition, and personality are not evident in personal appearances, household environment, or past achievement.

Finally, the combination of deficiencies in men, land, and capital

⁵ This is a partial verification of Dr. O. E. Baker's persistent contention that in the future the population of this country is likely to be drawn disproportionately from the areas of the poorest lands.

just outlined foredooms the "new" farmers to difficulty or failure. Without part-time employment from relief, the oil industry, mining, or lumbering to supplement the real income from products raised on the home farm, cash incomes may be insufficient to meet needs for clothing, medicine, and education. In other words, these families may be forced to accept a very low standard of living. Such a condition, if permitted to continue, will aggravate further the social and economic problems of this state.

How long the present population trends will continue depends largely upon changes in the factors producing them. It is fairly certain that satisfactory adjustments will not be initiated wholly within industries now operating in the state. From every indication the oil, mining, and minor manufacturing concerns will be unable greatly to enhance their economic positions.

Fortunately for Oklahoma, a succession of oil discoveries has maintained the hordes of oil-field laborers fairly well for three decades. With the advent of the depression crude oil prices collapsed, bringing about a relatively sudden cessation of activity. No large fields have been discovered since 1930, and the active pools are beyond the peak of extensive development. It is in the earlier stages of drilling that large crews are used. Pumping, transportation, and processing do not draw so heavily on the surplus laboring population. Furthermore, the controlling of production has had a tremendously adverse effect on the demands for labor. In all Oklahoma oil fields men are now working on a part-time basis. While it is conceded that regulation of the industry is necessary to conserve the resources and save the oil companies from financial ruin, the fact must be recognized that labor is suffering most from the present policy. Technological improvements also act as a minor deterrent in re-employment. A cursory study of the situation leads the writer to believe the oil industry, for the next two or three years, will not be able to reabsorb the labor displaced since 1929, principally for the reasons mentioned. With little or no possibility of broad expansion in other industries, the bur-

den of supporting this population element may be expected to fall upon agriculture.

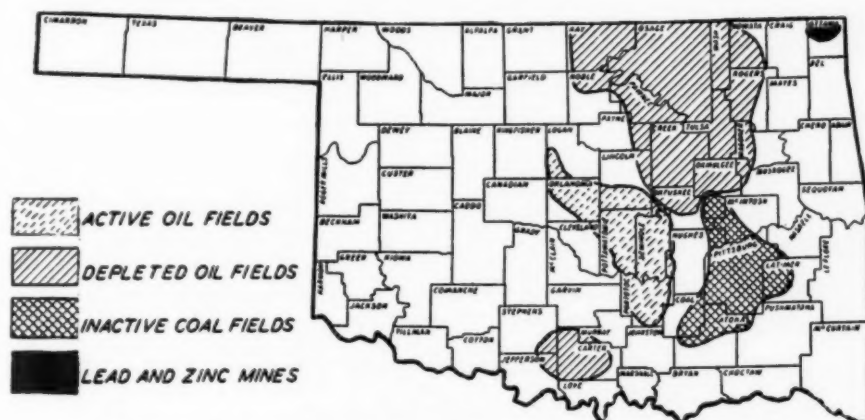
The depression in Oklahoma's coal mining industry began when the World War ended. Proof of this statement is seen in the population movement from mining counties during the postwar decade ending in 1930. Since the beginning of the general depression the outward movement of miners is believed to have lessened. Lacking the opportunity for employment in other extractive or manufacturing industries, miners settled on farms. There are still hundreds of unemployed miners waiting for the mines to reopen. During 1934 and 1935 some improvement has occurred, but two factors are hindering recovery, namely, competition from the use of oil and gas as fuel, and the inability to produce and transport coal as cheaply as out-of-state companies. In seeking possible solutions for readjustment subsistence farming, with part-time employment in the mines, is fairly promising. At least, the present trend seems to be in this direction.

Ottawa County, in the northeastern corner of the state, has 4,000 unemployed lead and zinc miners.⁶ The important position of the Tri-State District in the lead and zinc industry makes its prospects for re-employment much brighter. But the county is populated far beyond its capacity for self-support. To date no practical solution, other than relief, has been proposed.

It may be concluded from the foregoing discussion that the factors contributing principally to the mobility of population in Oklahoma are: (1) due to the relative newness of the state, sufficient time has not elapsed for the population to become fully absorbed into the existing economic patterns; (2) the depletion of such natural resources as soil fertility and petroleum has reached a point where, under prevailing market conditions, the state may only support its present population at increasing costs or with a lower standard of living; (3) the surplus population has tended to migrate into areas in which self-sufficing

⁶ The National Re-employment Service had 5,767 male registrations in February, 1935. The estimate on the number of miners unemployed was made by the director of the NRS offices and the administrator of the county ERA.

agriculture alone cannot afford more than the necessities of meager existence; (4) the drouth specter in recent years is responsible for much of the instability of the population in western Oklahoma counties; (5) the mechanization of agricultural production has led to labor displacement; and (6) the decline of out-of-state markets for non-agricultural products, such as oil, coal, lead, and zinc, has necessitated an occupational shift from the extractive industries to agriculture.



MAP 4. Active and Depleted Oil Fields and Mining Areas of Oklahoma Having Stranded Population.

Forms and Problems of Culture-Integration And Methods of Their Study

Pitirim A. Sorokin

PART II

LOGICO-MEANINGFUL INTEGRATION OF CULTURE AND METHODS OF ITS STUDY

BOTH the causal-functional and the logico-meaningful methods of interpreting the culture-integration serve as ways of arranging the infinitely numerous and complex phenomena of the socio-cultural world into comprehensible systems. What we style the socio-cultural world consists of endless millions of individual objects, events, processes, and fragments having an infinite number of forms, properties, and relationships.¹ With a respective change we can say of it what is said of the whole universe. "The universe is infinite—unbounded in space and time and infinitely complex. In its infinite complexity it cannot be known and understood through direct sensory perception."² "It is absolutely impossible for the human mind to know the universe through considering separately all its singular forms."³ Not even a small part of the universe can be known and grasped in all the complexity of its infinitely numerous and diverse separate forms, events, and elements.⁴ If we had no means of arranging this infinity or any part of it, we should be lost in chaos, and no comprehensible understanding of it would be possible.

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¹ See especially H. Rickert, *Die Grenzen der naturwissenschaftlichen Begriffsbildung* (Tübingen-Leipzig, 1902).

² A. A. Tschuproff, *Očerki po teorii statistiki* (St. Petersburg, 1909), p. 1.

³ Rickert, *op. cit.*, p. 33.

⁴ Tschuproff, *op. cit.*, pp. 1 ff.

The same is true of the socio-cultural universe. To our perception it appears to be a complicated and inexhaustible chaos of infinitely numerous and diverse fragments. The investigator of cultural and social phenomena stands in a position not unlike that of the man with the jigsaw puzzle. He has before him millions of socio-cultural fragments: births, deaths, marriages, divorces, card games, elections, meals, friendships, quarrels, concerts, exhibitions of paintings, lectures, discussions, Congressional debates, acts of the government, religious movements, wars and revolutions, bills by the Pope, manifestoes of the dictators. Every copy of a newspaper gives him thousands of pieces of the most heterogeneous news—scattered pages, as it were, from the book of culture—as different from another and as unrelated internally as they can be. Any large cultural configuration is made up of millions of such various fragments. None of us perceives directly the culture of any area as something whole which is bound compactly and comprehensively in a book, or packed in a box, or depicted upon a single canvas. At any moment during the whole span of our life we perceive mainly this infinity of singularistic fragments.

One of the main ways of bringing order out of the chaos of the whole universe, as well as of the cultural world, is furnished by the causal-functional formulae of integration. They give us the *patterns of uniformity* that are to be found in the relationships of a vast number of individual components of this infinite chaos. By means of these formulae we can reduce the chaos to a series of comprehensive systems in which we are more easily oriented and which permit us to distinguish more important from less important aspects. Causal-functional formulae, like the Newtonian Law of Gravitation, sum up briefly a prodigious number of separate relationships. They resemble a beam of light that cuts across chaotic darkness through all its unlimited depths. This, with proper reservations, can be said of any causal formula. It achieves its purpose by establishing a *uniformity* of relationship between the variables under scrutiny. Through it a vast concurrence of fragmentary events, forms, objects, and relationships becomes a comprehensive whole. When the formula shows that

the variables A and B—depression and the birth-rate, modes of production and ideological forms, psycho-social isolation and suicide, urbanization and crime—are more or less uniformly associated with one another in the sense that B normally follows A or changes with A, this *uniformity* binds the variables together, introduces a readily understood causal order into disorder.

Different in nature, but similar in function, is the rôle of the *logico-meaningful method of ordering chaos*. Here, however, the ordering element is not uniformity of relationship between the fragmentary variables, but *identity of meaning* or *logical coalescence*. Hidden behind the empirically different, seemingly unrelated fragments of the cultural complex lies identity of meaning which brings them together into consistent *styles*, *typical forms*, and *significant patterns*. If, therefore, *uniformity of relationship is the common denominator of causally united phenomena, in the logical-meaningful union it is identity of central meaning or idea*.

The procedure involved in arranging the scattered pages of a treatise, or putting into a comprehensible unity the individually meaningless fragments of a jigsaw puzzle is, as we have seen, a concrete example of such a logically-meaningful ordering. Of course, if the socio-cultural conglomeration—the scattered pages, or the fragments of the puzzle—do not belong together, the procedure is impossible. But this means only that where there is no factual logical unity in the cultural conglomeration, one cannot find it, and if one tries to impose it upon the mass one commits an error similar to that of finding or imposing a causal relationship where it does not exist.

Thus we see that the systematizing natures of the causal and of the logico-meaningful principles are different, but that their cognitive functions are similar; both serve the same purpose, each in its own way; both sum up in their formulae large accumulations of events, objects, relationships; both connect into a unity chaotic masses of fragments. Both are necessary for a study of the socio-cultural phenomena—each in its own field. Obviously, on the level of the logically integrated

layers of culture the logico-meaningful method is much more important than the causal.

Let us, therefore, continue the comparison of both methods, further defining the type of cultural complexes to which each applies, and the character of their resultant unifications.

B. The causal method, especially in the natural sciences, obtains its formulae mainly through breaking up complex phenomena into their simpler units; and the more general the formula, the further the reduction of complex to simple, until ultimate simplicity—the atom, electron, proton—is reached. Studying the relationships between these simplest, and therefore universal, units and discovering the nature of their uniformity, the causal method offers *eo ipso* formulae of uniformity which are also universal in their application. For, since all the complex material systems consist of the simple universal units, their uniformity becomes the pattern for all the more complex phenomena. These units are, as it were, the common denominator of all functional integration in the natural world. They are, so to speak, the "stuff" that permeates all complexes and makes them all causally related in the way in which the individual units are related to one another.

In the logico-meaningful method of formulating unifying principles such a procedure is impossible. Despite the endless efforts of a legion of social scientists, simple social atoms or units have not been found and cannot be found, so far as the logically-integrated part of culture is concerned.⁵ One cannot indicate what the "cultural atom" is in literature, painting, music, science, philosophy, architecture, or in any other similar compartment of culture. Instead, the logico-meaningful method has its own common denominator for relevant phenomena: *it is the identity (or similarity) of central meaning, idea, or mental bias, that permeates all the logically related fragments.* Because of this, all the fragments in question are identical or similar in their significance; all of them have the same common denominator which binds

⁵ See my discussion of the various mechanical theories as well as "organismic" theories in *Contemporary Sociological Theories* (New York, 1928), chaps. i and iv, *passim*.

them together, conditions their relationship, makes them a unity. In this sense, in the cultural world identity of central principle, idea, or norm plays a rôle analogous to that of the atom, proton, electron, or other ultimate unit universally common to all the material systems.

C. The functional or causal connection of separate units is almost always inferential and external; it rarely gives us an intimate or internal comprehension of the connection. Through experimental, observational, or statistical manipulations we find that two variables, A and B, seem always to go together; they either coexist, or follow one another, or vary together. But why do they do so? Why is the force of gravitation in direct ratio to the mass, and in inverse ratio to the square of the distance? Why does the volume of gas vary in inverse ratio to the pressure? Why do oxygen and hydrogen, under certain conditions, become H^2O ? We do not know. All we know is that, within the limits of our perception, they have usually done so, and that they will probably continue doing so in the future. Beyond this externally observed connection, we have no intimate understanding of such associations. For example, if somebody could demonstrate that the rate of divorce and the use of yellow leather shoes fluctuate together, we would have to agree that they were connected functionally, though we should have no understanding of why it was so.

We have a different feeling in regard to logically integrated unities. The properly trained mind⁶ apprehends, feels, perceives, senses, and understands the supreme unity of Euclid's or Lobachevsky's geometry of perfect mathematical deduction; of Platonic metaphysics; of Phidias' Athena; of a suite or concerto by Bach; of Shakespeare's drama; of the architecture of the Parthenon or the Cathedral of Chartres. Such a mind comprehends their sublime unity internally, intimately; often feels it immediately and directly; senses it without any experimental

⁶ It is true that for their apprehension talent and training are necessary, just as they are necessary for the discovery and apprehension of causal or functional liaisons. To an untrained mind the causal and incidental associations are about the same; such a mind does not make causal discoveries. So let not this point be invoked by the narrower-minded causalists, as an objection to either the existence of, or the objectivity of apprehending the logico-integrated unities.

or statistical manipulations and without indirect reasoning. It is given to such a mind axiomatically, so to speak, as the supreme certainty to which inference can add nothing. If by chance the torso of the Venus of Milo were found in one place and its head in another, when they were brought together their belonging to one another would be self-evident; while if to the head of the Venus was added, let us say, the body of the Egyptian Sphinx or of Bernini's St. Teresa, their heterogeneity would also appear at once. If, in a manuscript of music supposedly by Bach, there were found several bars similar, let us say, to the music of Honegger or Gershwin, a trained musician would understand at once that they were there through some mistake. If, in a volume containing several chapters of Kant's *Critique of Pure Reason*, one found included chapters similar, let us say, to the writings of Dorothy Dix, their incongruousness immediately would be perceptible. In other words, the logico-meaningful unities are much more intimately comprehensible, more readily perceived, than are causal-functional unities.⁷ Common speech strikingly differentiates the two types of integration. We employ the word "cause" for the causal-functional relationships; but, for the higher unity of logic and meaning we use the word "reason" ("the cause of it is," and "the reason of it is," or the *raison d'être*, etc.).

D. The primary difference between the causal and logico-meaningful connections leads to a further derivative difference between them. The essentially external nature of the causal association in many cases precludes our grasping the relationship between discrete variables in time or space. If variables A and B are neither met with regularly,

⁷ It is to the credit of W. Dilthey that he stressed especially strongly, though mainly psychologically, this difference. "*Die Natur erklären wir, das Seelenleben verstehen wir.*" The purpose of the causal-natural sciences is to find the relationship between objects and variables (zwischen den Gegenständen), while that of the *Geisteswissenschaft* is an understanding (das Verstehen) of the objectivizations of life through the personal life-experience of each who desires to understand. As such it gives direct and immediate comprehension. See W. Dilthey, *Einleitung in die Geisteswissenschaften* (Leipzig, 1883), Bk. I; also "Der Aufbau der geschichtlichen Welt in der Geisteswissenschaften," *Abhandlungen der Berliner Akademie, philosophisch-historische Klasse*, 1910, pp. 1-112. His world of the *Zweckzusammenhänge* is similar to, but not identical with, what I call the world of the Logico-Meaningful Integration of Culture. In other respects there is a profound difference between Dilthey's system and that developed in the present work.

nor coexist, nor follow one another in immediate sequence, nor vary together uniformly, such variables cannot be declared to be connected causally. Even if theoretically a causal chain exists between them (as is possible from the standpoint of "singularistic causality"), it cannot be discovered and understood, and therefore (for the observer) practically amounts to its non-existence. The situation in regard to logico-meaningful connection is considerably different. Theoretically, and frequently in fact, this sort of association is comprehensible, even when the interrelated fragments are met with at quite different periods, in quite different places, and only once or a few times. Conversely, the mere fact that we regularly observe the variables A and B in causal association does not necessarily mean that they are logically and meaningfully integrated.

If one meets but once and in one culture (say the Egyptian) a belief in the hereafter, funeral rites, and the practice of mummifying the body, this one case is sufficient to establish the logical connection of these three elements. Or, if one finds only once the association of a dominant philosophical materialism, the naturalistic style of painting, and the economic and mechanistic interpretation of history, this case is sufficient to make clear that they belong together logically, though on the basis of one case we cannot say anything of their causal connection. On the other hand, suppose a scientist would (on the basis of a large number of "cases") prove that the variables A and B, say the number of yellow leather shoes in use and the divorce-rate, always vary together. Such an exceptionless causal association in no way forces us to conclude that the elements are united logically and meaningfully. A competent person could listen as many times as he liked to a musical composition where jazz and crooning are interspersed with bars from Tchaikovsky, Stravinsky, or Wagner, without needing to conclude that such musical compositions are logical and consistent unities. Suppose we find a large number of houses in the classical style with a Gothic tower superimposed. This does not prevent the conclusion that such houses are architectural "hash," and for the same reason that we would declare illogical the conclusion, "Socrates is immortal,"

from the premises which should establish his mortality, or the answer "six" to the question, "How much are two and two?" There certainly must be *causes* for such illogicality; but, no matter how frequent such answers are, or how many people make them, they still remain illogical. This shows once again that the causal and logical forms of connection are governed by entirely different principles.

It frequently happens that the presence of the logical connection between variables is accompanied by their causal cohesion. The discovery of a logico-meaningful relationship is often one of the best symptoms of a probable causal link as well. But not every causal association is followed, necessarily, by a logical connection. All the causal-functional connections in the field of the natural sciences, for example, and many in the field of human culture are lacking logical bonds. And this throws light on the mixture of different architectural forms, opposing musical styles, disparate premises and conclusions which were cited above as examples of illogical, non-logical, and alogical combinations, which might yet be causally explicable.⁸

E. Causal-functional connections vary so greatly in degree of intensity that we have not only cases in which we are reasonably certain of the causal nature of the association, but also others in which we are not certain whether the association is really causal or merely incidental (*post hoc propter hoc* and the like). Similarly, the closeness of logico-meaningful integration also varies from the sublime unity to that barely perceptible, and merges into the lower grades of association. The greatest values in all the important compartments of culture represent, as a rule, the logico-meaningful synthesis in its most intense form. A mere heaping up of various bits of information, on

⁸ This means that, with the exception of the logically integrated part, culture is not so much non-logical or illogical, as Pareto claims, as alogical, or outside the category of the logical or non-logical. If the volume of gas is inversely proportional to the pressure, this causal uniformity is neither logical nor non-logical. The same is to be said of any causal relationship. On the other hand, Pareto greatly underestimated the extent of the logical aspects of the Graeco-Roman and Western cultures. As we shall see, the highest layer of these cultures—the logically integrated part of it—was in fact far more extensive than he thought.

the contrary, has seldom acquired the distinction of being considered a great scientific or philosophical contribution; nor has a mere hodge-podge of various styles made great music, painting, or poetry. It is not incidental that the very term "eclectic" has a negative connotation, even in its application to supposedly impressive achievement in these fields of cultural creation.

F. Causal integration, being external and inferential, exists supposedly in the inorganic, organic, and superorganic worlds. Logico-meaningful unity can be looked for only in the fields of the phenomena that involve human thought and imagination; that is, in the field of human culture, and there only in the parts resulting from the activity of the human mind, whether this activity is scientific, religious, philosophical, artistic, moral, or technical.⁹ *Meaningful and logical integration by definition can exist only where there is mind and meaning.* Elsewhere there are but causal, external, or spatial unities. This means that in the lower levels of culture (if culture be understood in the broadest sense), on the levels, that is, of the bio-social layer of socio-cultural phenomena, we can find unities of this kind only where there is an indirect influence from the higher levels. On such levels the causal and other looser relationships dominate.

G. A corollary to this statement is that, since the *highest values in any great culture belong to the class of the logico-meaningful unities, this level gives the culture its socio-cultural and logico-meaningful individuality*, its specific style, its physiognomy, and its personality. When we speak of the Greek culture of the fifth century B.C. as unique, we do not refer primarily to the enormous layer of traits that lies below the highest level. How the Greeks supplied their physiological needs, ate, slept, worked, loved, fought, and earned their means of subsistence is of secondary importance. We refer first and most of all to the specific logico-meaningful systems created by their great men of genius

⁹ If a thinker seeks this sort of integration for the entire cosmos, believing that it has an intelligent plan and logico-meaningful unity, he assumes invariably the existence of a Supreme Mind which was its creator. But in this present work I am not concerned with such problems; my analysis is confined entirely to human culture.

—such men as Phidias, Praxiteles, Aeschylus, Pindar, Sophocles, Polygnotus, Socrates, and Plato. And this is true of any other culture or cultural period so far as its highest form of individuality is concerned.

H. Causal relationships and the formulae which describe their uniformities vary widely *in the extent of their applicability*. Some have a very limited range of pertinence; others are relevant to an infinitely great number of cases. Newton's Law of Gravitation is more general, covers a much larger class of phenomena, than Kepler's laws. As was previously pointed out, the greater the progressive reduction of phenomena from more complex to simpler, the broader will be the applicability of the causal formula which expresses their relationship.¹⁰

In a similar fashion the logico-meaningful principles of integration in the cultural world vary in range of applicability. They begin with the narrow principle which describes the coalescence of a few components of infrequent occurrence in a limited cultural scheme. An example is the concurrence of images of anchor, dove, and olive branch in the frescoes of the Catacombs with the peculiar contents of the early Christian funeral prayer. They end with the principles which explain and fit together millions of cultural fragments of wide distribution in space and time. The hedonistic or utilitarian principle gives sense and unity to many scattered phenomena in a large cultural conglomeration, which includes such elements as large-scale kidnaping, get-rich-quick schemes, emphasis on the practical in arts and science, wine-women-and-song morality, and the philosophy of pragmatism with its utilitarian tenet to the effect that if the belief in God is useful, God exists; if not, God does not exist. But there may be a broader principle in which utilitarianism becomes only a small subordinate frag-

¹⁰ Out of millions of facts science chooses those "which can serve us many times," says H. Poincaré; and such facts permit the formulation of causal formulae with the largest general relevance. The same idea is expressed by E. Mach in the statement that science concentrates its attention on "those elements that are the same, and amidst all multiplicity are ever present." When the uniformities in their relationships are understood, the "laws" which result become applicable to similar associations throughout the universe. See H. Poincaré, *Science et méthode* (Paris, 1920), pp. 8 ff.; his *Dernières Pensées* (Paris, 1913, pp. 11 ff.; E. Mach, *The Science of Mechanics* (Chicago, 1902), pp. 5 ff. and 77-78; A. Comte, *System of Positive Polity* (London, 1875), I, 18-21 and 243-45.

ment. In this sense we may speak of a long gradation of logico-meaningful formulae from the most limited to the most general.

But the process of arriving at the broadest logico-meaningful formulae differs fundamentally from that which applies to causal-functional associations. As has been explained, we cannot break up complicated socio-cultural accumulations into "atoms." Instead we must reverse the procedure and seek an all-embracing meaning which includes every individual element of the vast complex.¹¹

I. From what has gone before it follows that the investigation of each type of culture integration requires its own special procedure and brings about its characteristic results. *A study of any purely spatial and mechanical congeries gives nothing but a descriptive catalogue of the parts.* Since these are not united causally, no formula of causal uniformity, no causal or functional generalization can be made for them. Where there is no causal relationship there can be no causal law. This explains why most ethnographic and anthropological works dealing with primitive peoples are a mere catalogue-like description of religious, moral, family, economic, geographic, magical, and other frag-

¹¹ Since most of the social scientists of the last few decades have believed that there exists nothing beyond causal unities and the causal method for the study of cultural phenomena, it is comprehensible why they have sought so assiduously for a single, ultimate social and cultural element; why, even in the logically integrated part of culture, they have attempted to distinguish the "simple" and the "complex," the "elementary" and the "compound" forms of relationship. The "atoms" of the mechanistic and, in part, of the organic schools of sociology; the Spencerian and Durkheimian classifications of societies into the simple and compound (with the further complication of the double and triple compound); these are the examples and products of this general line of attack. Even if the application of such a procedure to the causal layer of culture can be justified, it is a hopeless enterprise where the logico-meaningful layer is concerned. There is no "cultural atom," no "simple," no "elementary," no "complex," no "compound" form *per se*. The predominant opinion which assumes that the elementary is identical with "primitive," and the complex with "advanced" civilization is, in the main, an unsound belief. Only in a purely conditional way is it possible sometimes to use these categories. This explains why all such efforts, when applied to the higher level of culture, have yielded nothing but atrocities and platitudes. A tool well fitted for causal analysis is being employed in a field for which it is not suitable at all. See P. Sorokin, "Remarks," *Revue Internationale de Sociologie*, XLIII (March, 1935); G. L. Duprat, "Introduction a l'étude des formes élémentaires de la vie social," *Archives de Sociologie*, série B. No. 1 (Juin, 1934); and the *Proceedings of the XII-me Congress de l'Institut International de Sociologie*, 1935, where this question was the main topic of discussion; cf. H. Rickert's works quoted above.

ments present in such cultures. Since the culture-complex of some of these tribes is in part a mere spatial congeries, or an accumulation based on some entirely external factor, and since the investigators have been unable to comprehend either the causal or the logico-meaningful integrating principles in the partially-known "primitive" cultures, mere description—fanciful or accurate, as the case may be—has been and has had to be the major result of their study. When dealing with purely spatial conglomerations, no other result is possible.¹² If an over-enthusiastic explorer attempts to insinuate a causal or logical integrating principle into such accumulations, he adds something that does not exist in, and therefore distorts, the reality studied.

In a study of cultural synthesis the parts of which are united causally or functionally, the causal-functional method with its more or less general causal formulae provides the proper procedure. If in a given group of cultural objects A, B, C, D, . . . N, A is united functionally with C, and B with D, the formulae that describe such causal unions, being suited to the nature of the association, would apply to other such associations of A and C, B and D, no matter where or when they occur.

So far as social scientists, especially those of the nineteenth century, have believed that all the elements of culture are causally united, they have been consistent in holding the discovery of a causal-functional uniformity of some kind between two or more socio-cultural variables to be the chief object of their study. They have, therefore, devoted the larger part of their energy to the discovery of the various formulae of causal or functional uniformity. The immense mass of theories of the existence of uniform relationships between two or more social

¹² It should be noted here that, since no broad culture is causally or logically integrated in its totality, historians who attempt to deal with all its aspects are unable to provide a thorough-going formula of uniformity, whether causal or otherwise. Most historical works are merely catalogues of men, events, objects, values, organized mechanically on the principles of time or space adjacency; and their inferences rarely have bearing beyond the specific area or group which they study. As providing causal or logical formulae of generalization their value is virtually nil. Fortunately, however, a number of great historians ceased to be historians and indulged in these broader inquiries resulting in important contributions to the causal and logical interpretation of culture.

variables (beginning with the most insignificant, like that between the number of windows in farmhouses and the number of bathrooms with running water, and ending with the vast generalizations of the sociological, economic, racial, geographic, psychological and other schools of sociology¹³ and social science) are the product of the causal or functional study of socio-cultural phenomena. Wherever in a socio-cultural synthesis some elements actually are causally united, and where such relationships are discovered, the attempt to apply causal formulae have been appropriate and have given valid results.¹⁴

Finally, in the study of logico-meaningful relationships the proper method is neither a mere sequential description nor a causal formula, but the appropriate unification of the fragments into a whole according to their logical significance or their logical co-existence. Such a statement will be questioned by all those who, champions of the causal-functional methods, hold to the saying *vere scire id est per causam scire* and maintain that there is no means for the scientific study of anything beyond the causal-functional analysis. To many of them the claim that there is another means sounds like bad metaphysics. Yet a slight concentration of thought is sufficient to make clear the validity of, even the logical necessity for, this claim. It is unnecessary to do more than recall what has already been established about the nature of the logico-meaningful type of unity in contra-distinction to that of the causal-functional form, or what was said of the supreme forms of cultural creation to which this, and essentially only this, highest kind of integration applies. It is sufficient simply to state its existence and to insist on its difference in significance.

¹³ See my *Contemporary Sociological Theories*, *passim*.

¹⁴ Unfortunately, many causalists did not realize that some socio-cultural conglomerations are purely spatial accumulations, and often looked for and "found" causal ties where none existed. This explains why such formulae are often unsound and why sociology overflows with quasi-causal uniformities which cannot stand the slightest test. On the other hand, the causalists have not realized that in many cultures there exist logically integrated systems which cannot be discovered and studied fruitfully by the causal method. We should not wonder then that they have either missed the specific nature of these phenomena entirely or, by trying to fit them into causal formulae, have produced something grotesquely unsound.

The essence of the logico-meaningful method of cognition is the finding of the central principle (the "reason") which permeates all the components, gives sense and significance to each of them, and in this way makes cosmos of a chaos of unintegrated fragments. If in a given concurrence of cultural elements such unity exists, and if the unifying principle is discovered and accurately stated, the formula is as important in its field from the cognitive standpoint as any causal formula in a case of causal coalescence. In one respect, at least, it is even more important: it is the only type of formula, and applies to the only sort of association, in which we catch a glimpse of the inward nature of phenomenal unity. The subsequent chapters of this work, of which the present paper is a part,¹⁵ will be a systematic realization of these statements, so it is unnecessary to present extensive proof here. For the purposes of clarification a few examples will suffice. Suppose, of two given cultural complexes, we find one through which, among countless other elements, runs the predominant thought that the true or *ultimate reality is supersensory*, that the reality detected by our organs of perception is illusory. Suppose, further, that in the second culture the current of thought is just the opposite; that *the only reality is that of our organs of sensory perception*. We now begin a series of logical deductions which runs something like this: If each of the two cultures is logically integrated to a substantial degree, we shall find the characteristic details, listed on the next page, representing the dominant current in it. (I have intentionally enumerated variables taken from the different compartments of culture.)

We shall find these variables because each of them is connected logically with the dominant attitude towards the nature of ultimate reality. All the traits of the first culture follow logically from the principle that reality is supersensory; all the traits of the second culture follow from the belief that reality is sensory.

Knowledge of one variable in a culture enables us to construct logically a large network of connections with many of its other variables,

¹⁵ This is the introductory chapter of my forthcoming volumes on *Integrated Culture; Its Types, Life-Processes and Fluctuations: A Study of Socio-Cultural Fluctuations*.

FIRST CULTURE

1. Dominance of
 - a) Rationalism
 - b) Mysticism or Idealism
 - c) Eternalism
 - d) Indeterminism
 - e) Realism
 - f) Sociological Universalism
 - g) The Conception of Corporation or Juridical Personality as a Primary Reality
 - h) Ethics of Absolute Principles
2. Few Discoveries in the Natural Sciences and Few Inventions
3. Static Character of Social Life with a Slow Rate of Change
4. Ideational Style of Painting
5. "Scripture" as the Main Form of Literature
6. Pure or Diluted Theocracy
7. "Expiation" as the Basic Principle of Punishment and of Criminal Law

SECOND CULTURE

1. Dominance of
 - a) Empiricism
 - b) Materialism
 - c) Temporalism
 - d) Determinism
 - e) Nominalism
 - f) Sociological Singularism
 - g) The Conception of Corporation or Juridical Personality as an Expedient Fiction
 - h) Ethics of Happiness (Hedonism, Utilitarianism, Eudemonism)
2. Many Discoveries and Inventions
3. Dynamic Character of Social Life with a Rapid Rate of Change
4. Visual Style of Painting
5. Secular Realism and Naturalism in Literature, with Sensualism and even Sexualism
6. Pure or Diluted Secular Power
7. "Adjustment," Re-education Mixed with Extermination of the "Unadjusted" and "Socially Dangerous" Persons

to forecast what will be the nature of each of these variables *if the culture is logically integrated*, and, in this way, to comprehend quickly the enormous diversity of its traits, qualities, quantities. Each of the variables becomes an orderly part of one logically-meaningful treatise, so to speak, where each page contributes to the sense of the others. In this way, the logico-meaningful method utilizes countless socio-cultural details which cannot be used by the causal method. Even the few variables listed above are so diverse, and their association, whether in positive or negative fashion, is met with so rarely that there is almost

no possibility of discovering whether they are causally united or not. Since they cannot be studied under "experimental" conditions, and since the number of cases in which these variables are associated is so small that no statistical technique can be applied to them, the causal method is not adequate for testing the nature of their unity. Furthermore, if we were unable to grasp their logical relationship by the logical method, we would be unable to imagine that all this seeming diversity could have any orderly pattern of relationship whatsoever.¹⁶

After the two sets of deductions have been made and the expected patterns formulated, there remains the second step, namely, the application of the proper set of formulae to a specific culture in order to discover whether or not it is logically integrated. If we find that this culture does contain the appropriate body of traits and variables, by one stroke we obtain several important cognitive results: (1) a highly intimate and certain understanding of many of the important aspects of the culture; (2) an insight into the nature and workings of most of its significant components; (3) a knowledge of the spectrum of its dominant mentality; (4) a comprehensive grasp of the very complex network of relationship between its traits; (5) a knowledge of whether or not, and to what extent and in what parts, the culture is logically integrated.

If it happens, in such a study, that we do not find the expected variables in the culture considered, that the combination of traits takes a direction different from what it should be logically, we still gain information of the first importance. We know: (1) that the given culture is not logically integrated; (2) that it is mainly alogical or non-logical (a diagnosis of considerable significance in view of all the fuss which followers of Pareto are making over his "discovery," as old as the history of human thought, that the beliefs and activities of man, and that social systems, are mainly non-logical or illogical); (3) possibly,

¹⁶ From this, one can see that the logico-meaningful method is essentially similar to the mathematical, both being first of all logical reasoning, but with the difference that mathematical reasoning operates with quantities and number, while logico-meaningful reasoning has to deal here mainly with qualities.

to what extent and in what parts it is alogical and non-logical; and (4) that we may expect more fruitful results in our study of this culture if we abandon the logico-meaningful procedure and depend upon causal, external, and spatial formulae.¹⁷

If the fruitfulness of the logico-meaningful method depends upon the discovery of the unifying principle that permeates a large or small portion of the components of a given cultural synthesis, the questions arise: How can such a principle be discovered? What are the guarantees that it is an adequate principle, and not the mere phantasy of a "speculative" mind superimposed upon a reality in which it does not actually occur? If different investigators offer quite different principles, how can it be ascertained which of them is valid, which lacking validity, or which is more valid than the others?

The first question is almost superfluous. As in causal investigation, the principle may be suggested by observation, statistical study, meditation, imagination, logical analysis, even by dreaming and by what is called mere "chance," or "intuition." All these ways, singly or in various combinations, have been operative in the first stages of most scientific discoveries.

More important is the question: *How can it be ascertained that a given principle of logical integration is valid?* That it is not imposed artificially upon the reality but, like a law in the natural sciences, represents a formula which describes adequately and without distortion, and in process of description unifies or "explains," many separate phenomena which otherwise would remain *dissecta membra*, fragmentary and meaningless? How, in brief, can we be certain that the principle corresponds to the reality? The answer is that the criteria of validity are virtually the same as for any scientific law. First of all, the principle must by nature be logical; and second, it must stand successfully the test of the "relevant facts"; that is, it must fit and represent them.

¹⁷ In my forthcoming work, the logico-meaningful method of study is applied in detail to the Greek, Graeco-Roman, and general Western cultures from approximately 600 B.C. to A.D. 1920, and, more cursorily, to the Egyptian, Hindu (Brahmanic), and Chinese (Confucian and Taoist). For the moment it must suffice to say that these cultures show logical integration to a large extent in their "higher" layers.

The first standard is self-explanatory and needs no further discussion. The second requires a few comments. In the field of socio-cultural phenomena, as in almost any other field, one can construct about the same set of phenomena not one but several theories, each of which may be logically impeccable. Which of these rivals is the best is decided by the testimony of the relevant facts. As soon as we try with this evidence to check the validity of all the principles set up, almost immediately some will show themselves to be unsound. Others will be generally relevant. But the more deeply and more carefully we probe them, the further will proceed the progressive separation of the more from the less adequate.

Suppose the application of a theory to a given culture results in our finding that the combination of its components runs contrary in nature to the implications of the principle. In that case there are two possibilities open to us: either to conclude that the culture is not integrated logically, with all the consequences that follow from this; or to suspend judgment and, asking whether perhaps the principle itself is wrongly chosen, try to find another principle which may better fit the facts. If we consider the enormous difficulty of finding the right principle—a difficulty which seems the greater by comparison with the same problem in the field of causal relationships¹⁸—the second course will appear the more reasonable. Before declaring a given culture non-logical or alogical, one has to experiment with as many principles as will at all fit any of the relevant facts.¹⁹ At this stage we have a number of theories, all of them varying more or less from each other. We must proceed with a progressive elimination of those among them which fit the fewest facts. We may have, for example, a principle *A*, which fits the sets of

¹⁸ For this, see especially A. A. Tschuproff's work where he shows, with great clarity, how difficult it is to discover the real nature of a causal connection, and how great is the danger of taking for a causal factor a variable which is almost always present, but, which, nevertheless, has no causal relationship with the "function," or "effect," under investigation. The history of the natural sciences, not to mention the social sciences, is full of cases of such "mistaken identity."

¹⁹ As a matter of fact, if no cultures are completely integrated logically, hardly any are absolutely alogical or non-logical. Therefore, with the proper efforts, a principle can be found that unifies at least a part of the components of any culture.

phenomena *a, b, c*, but does not fit *d, e, f*, and is contradicted by *m*. We may have also a second principle *B*, which fits *a, b, c, d, e*, does not fit *f*, and is contradicted by *n*. A third principle *C*, which we likewise formulate, may, on the other hand, fit all these sets of phenomena from *a* to *f* and be contradicted neither by *m* nor by *n*, nor by any other set, and besides fit the additional groups *g, j, s, p, x, y*. Evidently, the last of these theories, if logically as impeccable as the others, is the most valid.

Here the comparative value of the principles is decided by the same criteria as in the natural sciences. *Of several rival theories, that theory is best which describes the field of the phenomena in question most accurately, and embraces in its description the largest number of phenomena.* For these reasons, the Copernican system is better than the Ptolemaic, Newton's laws superior to Kepler's. Similarly, in the realm of socio-cultural phenomena, where several different principles of integration may be formulated, some may be more correct and more broadly applicable than others. Some, for example, may fit only a limited set of phenomena, while others will apply to several sets. Only one will stand forth as giving the most satisfactory meaning to the larger part of the elements. This is the theory we must choose.

Thus we may have a graduation of various theories from the standpoint of their cognitive value. The theory which would fit all the facts would be perfect. But such a theory could hardly be formulated in fact, because it presupposes complete information about realms of which our knowledge can, at best, be only a more or less accurate approximation.

In explaining the process of "fitting the facts" we may draw again on the analogy of the jig-saw puzzle. In attempting to solve the puzzle one may make several guesses, each of which is logically irreproachable, as to what the figure is going to be. When, however, one begins to test the guesses by the facts, i.e., under the guidance of each guess in turn begins to put the fragments into order, one soon sees that they do not fit according to the principle. Step by step guesses are eliminated until the correct one appears and turns a confused heap of fragments into a

comprehensive unity. The same procedure is used in testing each integrative principle by the facts which it attempts to unite. From this the most exacting thinker in the natural sciences can see that the nature of logical integration is in no way more "metaphysical" or "loose" than the most rigorously controlled causal generalization in his field.

These remarks clarify sufficiently the nature of the logico-meaningful form of integration, the situation in which it is relevant, and the methods of its application.

It is hardly necessary to add that the method is now new: it has been used, and used effectively, by great social thinkers from the remote past. Only in the second part of the nineteenth and at the beginning of the twentieth century, when the social sciences began thoughtlessly to imitate the natural sciences, and the natural sciences became particularly "causal" (at least in their aspirations), was the method neglected and even branded by the less discerning among the causalists as "metaphysical," "subjective," and the like. Plato's and Aristotle's method of analyzing the fundamental forms of political and social regimes and the mentality and psycho-social variables of each is, first of all, logico-meaningful. The same is true of such other great social thinkers as St. Thomas Aquinas, Albertus Magnus, Ibn-Khaldun, J. B. Vico, Montesquieu, Machiavelli (in the *Discourses*), and, in modern times, the very high priests of scientific positivism and causalism, Spencer and August Comte. Most of their important contributions (often even contrary to their express declarations) have been the result, not of a causal study, but of the conscious or unconscious use of the logico-meaningful method. Even such supposed empiricists, causalists, and functionalists as Durkheim (particularly in his *Division du travail social*, and in his *Elementary Forms of Religious Life*) and Pareto (whose works, with a lag of some 25 years, finally have reached America at the moment when their significance is definitely on the decline) use, contrary to their intention, not a causal method but first and foremost an imperfect form of the logico-meaningful method.²⁰ The same can be said of other

²⁰ Especially curious is Pareto's case. In spite of his indefatigable insistence on the logico-experimental as the only method in sociology, he uses a method neither very logical

social scientists. Whenever the theoreticians in the various fields of the social sciences have discussed the branches with which they are concerned (whether their discussion involves consideration of monarchical and republican forms of government; totemic and national society; natural, money, or credit economy; theological, metaphysical, or positive types of social mentality; mechanistic and organic solidarity as the bases of society; *Gemeinschaft and Gesellschaft*; opposition of Capitalist and Communist; the culture of East and West; Greek and "Faustian" forms of culture; caste, feudal, city-state, or modern national and international society; or extrovert and introvert types of personality); they have in fact attempted to apply, whether well or ill, what is styled here the principle of logico-meaningful integration. This is generally true of nearly every case in which the procedure is based on the establishment of a type, norm, or ideal.²¹

In view of this, it is peculiar that the cultural anthropologists, who recently have rather monopolized the study of culture, generally have failed to formulate clearly the principles of logical integration. They have been using it unconsciously (as when they talk of the totemic and other types of primitive society). Their deliberate efforts have been concentrated mainly upon the purely spatial and external forms of integration (for example, a study of the cultural traits from the point of view of their area of occurrence and the frequency of their distribution), supplemented occasionally by the functional. Only rarely has the logical method been tried deliberately, and even then with very little skill.

Two recent examples will serve to illustrate this unskillful use. The

nor especially experimental nor particularly causal or functional. All his main concepts and theories (equilibrium, residue, derivation, his classification of residues, the *rentieri* and *speculatori* types, and so on) are in all their aspects logico-meaningful through and through; but the method is applied by him in its poorest form, a weakness which results from his empirical and positivistic obsession to create a scientific sociology by a mere aping of the methods, concepts, and framework of reference used in the physico-chemical sciences.

²¹ For a criticism of these studies, see my *Contemporary Sociological Theories*, pp. 719-724.

first is offered by Professor Sapir, the second by Dr. Benedict. Sapir tries to distinguish "genuine" from the "spurious."

The genuine culture (he writes) is not of necessity high or low; it is merely inherently harmonious, balanced, self-satisfactory. . . . It is . . . a culture in which nothing is spiritually meaningless, in which no important part of the general functioning brings with it a sense of frustration, of misdirected or unsympathetic effort. It is not a spiritual hybrid of contradictory patches.²²

In brief, it is culture in which the parts are meaningfully unified. The "spurious" culture, on the contrary, is that which does not have this organic synthesis. From the characterization of the genuine culture one can easily see that by it Professor Sapir means neither a spatial nor an external accumulation, not even a functionally united congeries, but something similar to what I call logically integrated culture. Unfortunately, in his detailed characterization Sapir's concept of the logically integrated culture is marred by its partial identification with the idealized culture of the type which he finds most attractive.²³ We may disregard this defect and give credit to the author for groping for something which is of the first importance, even though he has not as yet seen it clearly. Let us, however, ask the question: What is the specific logical principle which Sapir applies to cultures in order to find out whether they are genuine or not? Then we at once see the limits of his method. He does not have any really significant and systematically applied key-principles. All his attempts to find such keys are virtual failures. We read that the supposed key of the French culture is "clarity, lucid systematization, balance, care in choice of means, and a good taste."²⁴ The key to the Russian culture is

the tendency of the Russian to see and think of human beings not as representatives of types, not as creatures that appear eternally clothed in the garments of

²² E. Sapir, "Culture, Genuine and Spurious," *American Journal of Sociology*, XXIX, 410.

²³ This mixture of logical integration with the idealization of the culture which meets one's taste, is clear even from the brief passage quoted, with its partisan adjectives and phrases, "harmonious," "unsympathetic effort"; and this is true of the entire study. Sapir's "genuine" culture is the culture which he likes, and all the cultures which he dislikes are "spurious."

²⁴ *Ibid.*, p. 407.

civilization, but as stark human beings existing primarily in and for themselves, only secondarily for the sake of civilization.²⁵

All this perhaps sounds "romantic," but it is also unclear, ununited, and factually wrong. First of all, in the French case not one but several keys fit the same door: clarity is not the same thing as balance or systematization or good taste or care in choice of means. Such an array of traits is nothing but a hodgepodge. Second, the integration is superficial and journalistic; it does not give the slightest idea of the content of French culture, its meaning, its real physiognomy. The physiognomy of a dog, a bird, a fish, a man will be "lucid" and "clear"; nevertheless, they are very different from one another. Sapir's characterization is what one may expect to hear from the summer tourist. Even if the traits are accurate they integrate, at the best, the mere formal surface of the phenomena of the French culture. They do not give any "key" to its science and philosophy, religion and ethics, art and law, economics and politics.

In the case of Russia only one, but that the most "significant" principle, is indicated: the principle of the "stark human beings," of the famous and mysterious "*âme Slave*," as all the janitresses in Paris call it. Evidence? Practically none, except indefinite references to Tolstoi, Dostoevsky, Gorki, Chekhov, Turgenev, with a little Moussorgski and Tchaikovski.

Surely this is not a broad enough basis for generalization on the whole of Russian culture. If the author had asked himself how this Russian was able to create one of the vastest of empires, occupying about one-sixth of the planet, probably he would never have set down the key-principle which he offers as the open sesame of the entire civilization. Moreover, Sapir's key really does not tell us anything about the character of Russian science, philosophy, religion, art or literature, or of its forms of social, political, economic, and other organization. The same is true of his key to the culture of the "typical American

²⁵ *Ibid.*, pp. 407-408.

Indian tribe," his great knowledge of which should have given his words special authority.²⁶

To sum up: Professor Sapir is on the right track in his search for what I style the logical form of culture integration, but he fails, partly because he has no clear idea of the true nature of logical integration, nor of how to find a logico-meaningful key-principle and apply it to, and test it by, the relevant facts.

With slight modification, the same can be said of Dr. Benedict's effort. She also tries to integrate the cultures which she studies in a way which approaches logical integration. But when she seeks to unify in this fashion a number of "preliterate" cultures (the Zuni, the Dobu, and that of the tribes of the Northwest Coast of America), she also fails. For instance, we are shown that among the Zuni there exists: a distrust of individualism, sobriety and inoffensiveness, ritualism, imitative magic, a highly developed priesthood together with theocracy, the blood-relationship group, property taboo, and certain specified forms of family relationship, marriage, household economy, and so on.²⁷ Granted that the description is accurate, it is not sufficiently discriminating to enable us to decide whether in these combinations we have logical or functional unity, or purely spatial adjacency, or accumulation

²⁶ Sapir's subsequent discussion of civilization and culture, art, and so on, is rather naïve. Here we find the usual error committed by modern anthropologists when they discuss "complex" civilizations. Accustomed to deal with the "recordless" primitive societies and cultures, they, consciously or unconsciously, apply the "timeless" typology—which is wrong even in application to the primitive societies—to the cultures whose history and profound changes are known to us. To talk of them, regardless of time and period, as of something which remains the same throughout the centuries is unsound. But this is what is done almost all the time by the anthropologists who indulge in such characterizations of the "historical" cultures. For instance we read in Wissler's *Man and Culture*, pp. 233 ff.; "Oriental art is highly conventionalized and does not strive to be realistic, while Occidental work approaches exactness in reproduction." If the author had taken Occidental art, say before the fifteenth century, he would have seen that it was highly conventionalized, as much as any Oriental art at any period. And, *vice versa*, the art of some of the Oriental countries at some periods was as realistic as the Occidental art of the last four centuries. What Wissler says about Occidental and Oriental music, the "flowing bowl," and so on, is still more fallacious. The main source of the error is, besides incomplete knowledge of these subjects, the application of the timeless categories to the historical and changing cultures for which we have records that show the change. In a lesser degree, the same mistake is made by Sapir and others when they talk of modern cultures.

²⁷ See R. Benedict, *Patterns of Culture* (New York, 1934), chap. iv.

affected by an external factor.²⁸ Even her invocation of the Nietzschean "key" of the Dionysian and Apollonian types of culture (this actually refers to music in Nietzsche) does not help much. What she really gives us is not a key to the cultures studied, but an empirical description of them. Traits and complexes are put side by side, but their logical or causal relationship to one another remains unilluminated by the juxtaposition. The application of Nietzsche's categories does not improve the situation, rather makes it worse, because the meaning given to the terms Apollonian and Dionysian is somewhat different from that which Nietzsche gave to them; because the categories are not naturally applicable to the situation, but represent an artificial imposition upon

²⁸ The same is true of the other two tribes described in the work. The author, as we shall see, tries to show that these cultures are functionally integrated; but the procedure of the integration which she follows is not so much functional as logical. The same is to be said of Wissler's treatment of the main traits of the modern American culture, mentioned before.

A similar failure to distinguish the spatial, external, functional, and the logico-meaningful forms of culture-integration, plus a lack of clear understanding of the necessity, is quite noticeable especially in the methodological formulations of functionalism by A. R. Radcliffe-Brown. Putting aside his unenlightening organismic analogies, we turn to his definition of functional relationships: "Function is the contribution which a partial activity makes to the total activity of which it is a part. The function of a particular social usage is the contribution it makes to the total social system. . . . Such a view implies that a social system (the total structure and the totality of usages in which this structure appears and on which it depends for its continued existence) has a certain kind of unity, which we may speak of as a functional unity. . . . We may define it as a condition in which *all parts* of the social system work together with a sufficient degree of harmony or internal consistency, i.e., without producing persistent conflicts which can neither be resolved nor regulated. . . ." Here, as well as in other similar statements of his, there is present a mixture of all the main forms of integration, of the spatial, functional, and logico-meaningful connections. If by functional he means the causal-functional connections of the parts of a given cultural conglomeration, then it is hard to talk of such connections in terms of harmony and disharmony, of inner consistency and inconsistency, because causal relationships are neither harmonious and disharmonious, neither consistent nor inconsistent. They are simply either causal or not. The relationship between the volume of gas and the pressure is neither harmonious nor disharmonious, consistent nor inconsistent; it is simply causal. The terms harmonious and the like are suitable as indications of the existence of a logico-meaningful relationship between the parts. But the author nowhere formulates such relationships, and talks of functionalism in the sense of causal functionalism. On the other hand, taking his definition of functionalism, one cannot separate a mere spatial congeries from causal-functional unity. Any part of any spatial congeries contributes something to the whole of which it is a part. This, however, does not mean that it is functionally connected with the rest of the congeries. The distinguished author seems to admit the existence of such accumulations saying that "not everything in the life of community has a function" (an awkward expression!), but he nowhere attempts to

cultures which have little to do with them; and finally, because some of the cultures with which Dr. Benedict deals have a very small degree of logical integration.²⁰

From these examples we perceive that some modern anthropologists have at last begun to search for logico-meaningful principles with which to explain certain cultures. Up to now their efforts have yielded few results, and from not unfathomable reasons. As we shall see, even in the comparatively highly integrated cultures logical synthesis takes place only among part of their elements. Therefore, so far as the primitive cultures are concerned, we must expect even a lesser degree of logical integration. At best only a relatively small part of their traits would show such coalescence; yet, in order to understand even this portion of the culture, we must discover a key which is neither haphazard nor based upon journalistic observations. Here, as anywhere in science, keys are not found by everybody, nor even by every serious specialist, without concentrated and systematic thought, meticulous labor, and . . . luck. These examples, likewise, offer confirmation of the writer's claim that the validity of the integrating principle can be tested as severely as that of any causal principle in the natural sciences:

give any inkling as to how we are to distinguish a congeries from a causal-functional unity. In brief, in his words "function" and "functionalism" he includes a great many different things, from the biological meaning of the terms in the connotation function-organ, to the fusion of spatial, external, functional-causal, and logico-meaningful forms of relationship. In such a setting he is likely to take as functional the connection discussed above of the elements A, B, C, D, . . . N found empirically in association in a given locality, for he does not have any means to separate the really functional from the accidental. In this respect, the criticism of functionalism in anthropology by A. Lesser—that functionalists are open to the error of confusing these connections, having virtually no ground on which to test which of the integrations are functional and which mere co-existences—is also valid.

What I have said here is not aimed at the very valuable contributions of Radcliffe-Brown and others in their actual field studies. All that is intended is to show that, in this basic problem, a great deal of confusion exists; that it exists even in the best works; and that some of the best investigators seem to sense the existence of what I style the logico-meaningful unities, but have hardly thought the problem through clearly.

See A. R. Radcliffe-Brown, "On the Concept of Functional Social Sciences," *American Anthropologist*, XXXVII (1935), 394-402; A. Lesser, "Functionalism in Social Anthropology," *ibid.*, pp. 386-394; and A. L. Kroeber, "History and Science in Anthropology," *ibid.*, pp. 539-570.

²⁰ See R. Benedict, *op. cit.*, *passim*.

Those keys that are invalid either fail to work or break easily under a test; those that survive the test merit the name "scientific" until their shortcomings are demonstrated.

From the above it follows that in the study of cultures, we should look for both forms of true integration: logico-meaningful and causal. When discovered, they give a better knowledge of the culture than if only logical or only causal integrations are found. Using these two powerful beams together, we illuminate more widely and completely the chaotic darkness of the fragmentary socio-cultural world of perception, and may then proceed to arrange them into systems which permit us to grasp the nature of the components which, beyond mere spatial and external accumulations, possess true unity.

Each of these methods, however, must be applied separately and in its proper field. But this does not preclude a further study of the relationship between the logically integrated and the functionally united layers of culture³⁰ with a view to throwing up a bridge between them. Thus, proceeding along these orderly lines, we get at least a part of the culture soundly integrated and, therefore, properly comprehended. But if we mix indiscriminately the different forms of culture integration and the different methods which apply to each, we are likely to be lost in chaos and our results will be confused, unbalanced, unsound.

5. SOME RESULTS OF THE PRECEDING ANALYSIS

If there are at least four different types of cultural integration, spatial, external, functional, and logical, each with the properties described, then one may draw a definite series of conclusions.

a. All cultural conglomerations can be ranged, theoretically, upon a scale, beginning with those which are a mere spatial congeries, that is, are unintegrated in the proper sense of the word, and ending with those which are completely integrated logically. We virtually never

³⁰ As my projected study will show, with full facts, the relationship between the two layers is peculiar in many respects, and its peculiarity throws an interesting light upon many compartments of culture, as well as upon the nature and direction of socio-cultural change.

meet with a perfect case of either an absolutely unintegrated or a completely integrated cultural complex. All the combinations which are now known occupy, however, different places upon the scale, some being nearer to the lowest, others to the highest, still others to the intermediate forms of integration.

b. If spatial adjacency and, in part, external unification are present in nearly every cultural complex, the same cannot be said of the functional and logical forms of synthesis. It is probable that at least some of the elements are bound either functionally or logically, but what they are and how great a part of the whole they compose depends upon the culture and the period and must be found by special study.

c. If propositions *a* and *b* are valid, the following theories widely accepted are fallacious:

(1) That every culture is an integrated unity (unless, of course, by integration is meant a mere spatial congeries, a meaning which in its turn not only destroys the significance of the term, but also leads to other errors and illogicalities).

(2) That any change in any component of a given cultural configuration, functionally or logically, affects all the other components and, therefore, the whole of the given culture. This would be so if any cultural conglomeration were either a functional or a logical unity throughout. But since every combination has among its elements some united only in a spatial congeries or by external association, then removing old or adding new elements may not tangibly influence the rest of the accumulation in any functional or logical way. Contrary to the prevalent opinion, this sort of change has actually been occurring on a relatively large scale and with comparative frequency.

d. The nature of the change of a spatial congeries differs from that of functionally or logically unified systems. In the congeries the change means mainly a mechanical addition or subtraction of elements, or their rearrangement, chiefly through external forces. In the unified cultural systems, the change means a transformation of the system as a whole or in its greater part; this transformation involves, not merely a quanti-

tative addition or subtraction or a mechanical rearrangement of some elements, but an inner or organic change. This change may be produced in part, perhaps, by external forces, but primarily (as will be shown in the future chapters of the present work) is generated by forces within the system itself. The change in the spatial congeries is almost always accidental. It does not have any inner logic, and is the result of the interplay of various external factors. A wind can carry away some leaves from a dead pile or add some to it; a stone thrown into the pile may press some of the leaves more firmly to the ground; a dog playing in the leaves can rearrange their places, as well as the general form of the pile. Such a congeries is passive; it does not have either an inner tendency to, or an inner selection of, change in a specific direction. Except for its purely mechanical inertia, it is the plaything of external conditions.

Somewhat similar is the situation in a cultural congeries. A force external to the heap may dump into it some additional elements or carry away some of the objects which were there; it may change their mechanical order; the congeries remains passive through all these changes, does not have initiative, preferences, attraction and repulsion, selection and resistance.

While it is useless to look for an inner logic of change in the accidental congeries, it is absolutely necessary to do so in the genuine cultural unity. There is little reason to mention evolution of the spatial congeries; but we can apply this term to the functional and logical systems. The congeries is changed by mere chance; systems change according to the course of life which is predetermined for them by their very nature. They are "the equilibrium-systems," as the lovers of mechanistic terms like to say.

e. The logically and functionally integrated systems are real systems possessing several fundamental traits, and giving rise to a number of important considerations which are usually neglected:

(1) Any functional or logical system, as a unity, has a certain degree of autonomy and inherent self-regulation in its functioning and change

("equilibrium" of the mechanistic systems). Any system, whether it be a mechanism (like an automobile), an organism (like even the *Paremecium*), or a cultural system, has a certain degree of independence of, or immunity to, external conditions. In some cases this freedom may be large, in others narrow; but it is possessed to some extent by every system which pretends to integration. Thus, an automobile is immune to a considerable degree to the defects in the road, to change in temperature, and to many other circumstances; and the better the car, the larger is its margin of immunity. A biological organism is also immune to a rather large number of external elements. Similarly, the functional and, especially, the logical cultural systems have such an immunity to external circumstances: to weather, climate, seasonal change, various biological processes (including even such calamities as a poor harvest or an earthquake or an epidemic), and to external social conditions, such as the pressure of other societies and cultures. Even when these circumstances reach the scale of catastrophe (war, famine, plague), the systems, like a biological organism, may temporarily be shocked and fall ill, but often they recover in due time and resume their proper forms and functions.

(2) The autonomy of any system also means the existence of some margin of choice, or selection, on its part with regard to the infinitely great number of varying external agents and objects which may influence it. It will ingest some of these and not others. It has an affinity for some and a repulsion for others.

(3) Furthermore, autonomy means that the functions, change, and destiny of the system are determined not only and not so much by the external circumstances (except in the case of catastrophic accidents), but by the nature of the system itself, and by the relationship between its parts. An aeroplane can fly, a cow cannot; a gun can fire, a spade cannot. Whatever be the external circumstances, man cannot help passing from childhood to senility, and, sooner or later, dying. Likewise, a cultural system has its own logic of functioning, change, and destiny which is a result of not only, and regularly not so much, of the external conditions, but of its own nature. This does not deny the

influence of the external circumstances; neither does it deny the possibility of occurrence of the most decisive, catastrophic accidents caused by an external force; but it stresses what seems to have been forgotten for the last few decades, namely, that one of the most important "determinants" of the functioning and course of any system lies within the system itself, is inherent in it. In this sense, any inwardly integrated system is an autonomous self-regulating, self-directing unity. Its life-course is set down in its essentials when the system is born. This is one of the specific aspects of the larger principle which may be called "immanent self-regulation and self-direction."

(4) If this is true, then it is wrong to "explain" any true system as the mere plaything of external conditions, and reduce the explanation of the change in the system to this or that external factor.³¹ Such an explanation, if it neglects the nature of the autonomy of the system, can only land the one who explains in a swamp of logical and factual error.

³¹ This "external" standpoint has gone so far that, as a humorist has said, nowadays historians begin the history of any people and country with the indication that the people did not live where they live now but come from some other place, and the people who began the history of a given place was not the people who lived there before the beginning of its history. Similarly, if we must explain a change in the family, we take as a factor either an economic or religious or demographic or any other condition *external* to the family and in this way explain its change. The same procedure is often used with regard to other social systems in explanation of their change or workings. As we shall see, such a disposition to "externality" is not accidental, but represents one of the traits of the contemporary integrated culture.

Current Bulletins

Charles P. Loomis

This quarter the bulletins dealing with topics related to rural sociology cover a wide variety of interests. Among the investigations are analyses in the fields of population mobility, rural-urban differences, standards of living, and the activities of rural youth.

Because of the dearth of material concerning the recent ruralward migration, an Indiana study¹ of the back-to-the-land movement is particularly timely. Of 608 families, in 19 southern Indiana townships, which had moved back to the land, 374 were interviewed. By the use of census and other data, the townships were classified as "better" and "poorer."

Of the people returning to the land, 60 per cent in the better and 71 per cent in the poorer townships were unemployed people from the cities. Between January 1, 1930, and June 1, 1934, the landward movement was far greater to the poorer than to the better townships.

Four-fifths of the incoming families had farm experience, and slightly less than two-thirds considered their new residence permanent. Forty per cent intended to return to their former occupations at their first opportunity. In the better townships the new families had much higher gross incomes, owned more livestock, operated more total and cultivated acres, raised more farm products for the home consumption and market delivery, received less public relief, and were to a lesser extent in arrears in the payment of taxes than were the newcomers in the poorer townships. Although the influence of selection is considered, the authors maintain that the failure of the newcomers in the poorer townships to measure up to those in the better townships is chiefly due to the absence of good farming land.

From Utah comes a study² which compares the sizes of rural and urban children, adding another monograph to a long series of investigations into the physical differences between rural and urban residents. The analysis was based upon measurements of 12,913 rural and 13,871 urban children between the

¹ H. E. Moore and O. G. Lloyd, "The Back-to-the-Land Movement in Southern Indiana," *Bulletin No. 409*, Purdue University Agricultural Experiment Station, Lafayette, 1936. Pp. 28.

² Almeda P. Brown, "Comparative Size of Rural and Urban Utah School Children as Determined by the Weight-Height-Age Relationships," *Bulletin No. 266*, Utah Agricultural Experiment Station, Logan, 1936. Pp. 22.

ages of six and 15 years. With some exceptions the urban children of both sexes were both heavier and taller than the rural children of the same age, after the age of six had been attained. The author suggests that "causes of smaller size in rural children are environmental rather than genetic (*a*) because differences are slight in earlier years becoming greater with age, (*b*) the same racial stocks are represented in both rural and urban populations in Utah and in practically the same proportions."

Even if it be granted that the racial stock in the rural and urban populations in Utah are the same, more study should be made of selective factors that may be playing important rôles. It is generally recognized that rural-urban migrants go to all urban classes. Also, it has been established that in many societies the so-called "upper classes" are relatively heavier and taller than the lower classes of the same race.

An Illinois bulletin³ is a more extensive type of study than the title might indicate. Under the heading "General Economic and Social Situation," census data for 420 farms and data from personal interviews of 250 families in four townships are presented to show size and value of farm and tenure, nationality, and educational status of the families. Facts concerning population density, nativity, age, and migration are presented and the time-budgets of the families are analyzed. It was found that 90 per cent of the time of the average farm operator was spent on the farm. Persons of a productive age spent approximately one-fourth of their time in rest and recreation, more than one-third at farm work, and more than one-third in sleep. Trade conditions, habits, and practices are analyzed. Formal schooling, landownership, and length of residence in the community were found to be positively correlated with participation in community activities. Reasons for membership in voluntary organizations and attitudes toward business and educational organizations are presented in categorical form. Community activities and leadership qualities are analyzed.

A recent standard-of-living study made in Wisconsin⁴ is an analysis of 290 rural families, approximately one-fourth of the families in the Forest County portion of the Crandon, Wisconsin, Federal Land Purchase Area. It is important as the first special family-living study made in an area which is to be evacuated for reforestation. Families included were (1) those whose land had been appraised or optioned for purchase by the Land Policy Section of the Agricultural Adjustment Administration; (2) those who had applied to the Wisconsin Rehabilitation Corporation; (3) those dwelling in three typically stranded villages in the "Cut-Over."

³ D. E. Lindstrom, "Forces Affecting Participation of Farm People in Rural Organization. A Study Made in Four Townships in Illinois," *Bulletin No. 423*, University of Illinois Agricultural Experiment Station, Urbana, 1936. Pp. 127.

⁴ E. L. Kirkpatrick, "Needed Standards of Living for Rural Resettlement," *Mimeo-graphed Bulletin*, Resettlement Administration, Wisconsin Rehabilitation Division, Madison, 1936. Pp. 62.

The factors relevant to the level of living include budgetary items for which cash expenditures were made and which were furnished from the farm, indexes of participation in selected home and community activities (including reading hours and radio auditing per person per year), and attendance at church, Sunday School, moving picture theaters, and organization meetings.

Among the findings and conclusions are the following: (1) The proportion of the value of living furnished from the farm is relatively less in the higher income groups. (2) Over half of the total living budget (when the items produced on the farm are included as evaluated) was expended for food. On the average there is only approximately \$350 left for other expenditures. It is stated that a typical farm family of five should have \$500 for furnished and purchased goods in addition to food. (3) The majority of the families had deficits which were left unpaid or met by rehabilitation loans or other borrowings. (4) Eighty per cent of the 290 families received public aid at some time during the year. (5) Non-relief families had noticeably higher participation indices, in selected home and community activities, than relief families. The larger the proportion of the income procured from relief, the less the home and community participation in activities. (6) Distribution of total expenditures among the principal items indicates a significantly higher level of living among families on the larger farms. (7) It is important "that size of operating unit and possibility for supplementing the farm income from outside sources be given first attention in rehabilitation programs for situations where conditions are similar to those of this survey." (8) Two in every five of the families considered "are capable of remaining or becoming again self-supporting although a part of them will need temporary assistance to do so. Ten to 12 per cent are incapable of self-support. The remainder may be placed on a self-sustaining basis if provided sufficient aid and supervision and supplementary employment opportunities."

The preliminary report⁵ of the Rural Research Unit of the Works Progress Administration on Part-time Farming in Charleston County, South Carolina, has been abstracted for the publication *Farm Population and Rural Life Activities* of the Division of Farm Population and Rural Life, U. S. Department of Agriculture. This report is based on a survey of 71 white families and 35 Negro families who worked in urban industries and had been established for at least two years as part-time farmers. Ninety-four Negro farm laborers with part-time farms were also included. Distances between available farm land and industrial employment and lack of transportation apparently deterred greater numbers of industrial workers from undertaking part-time farming. Non-commercial, white, part-time farmers, who were engaged in urban industry, had about the same

⁵ W. W. Troxell, L. S. Cottrell, Jr., A. D. Edwards, and R. H. Allen, "Combined Farming-Industrial Employment in Charleston County, South Carolina," *Research Bulletin J-3* (Preliminary Report), Resettlement Administration, Washington, D.C., June, 1936.

family cash incomes during 1934 as non-farming, white, urban industrial workers, and the home-consumed products of the farm constituted a net addition to the family income, but the living conditions of these part-time farmers were inferior to those of the non-farming, white, urban industrial workers, reflecting urban-rural differences in housing and modern conveniences.

Among Negro urban industrial workers the part-time farmers had less employment than those who did not engage in farming, probably indicating to Negro part-time farmers the disadvantage of living at a distance from industrial employment. Negro part-time farmers also had poorer school facilities than city dwellers.

Workers who were engaged in part-time farming produced relatively little food. A few varieties of vegetables were grown during the summer months. Little canning was done, as fresh vegetables could be bought cheaply in the local markets during most of the year. Only a few Negroes and about half the whites produced dairy products, although the money expended by several farmers on unnecessary mules might have been used for cows instead.⁶

A recent study of the activities, interests and problems of rural young people in Tompkins County, New York,⁷ was based upon direct personal interviews of 347 young people who had, on the average, completed more than two years of high school. Of these, the men averaged 28 years in age and the women 24. Data are classified according to whether the persons resided in villages, in the open country, and on or off farms. Leisure-time and occupational activities, preferences, and interests are studied in considerable detail. It was found that 82 per cent of the young men and 67 per cent of the young women had received no organized training for any vocation. In answer to questions concerning activities, most of the persons, had they ways and means, preferred to travel and to own homes and farms.

During the last quarter there have also appeared a considerable number of mimeographed bulletins and circulars dealing with a variety of topics which interest the rural sociologist. Among them are the following:

H. M. Pevehouse, "Conditions in the Southwestern Wheat Area Which Affect the Rehabilitation Program (as typified by Perkins County, Nebraska)," *Research Bulletin K-4*, Resettlement Administration, May, 1936. Pp. 39.

⁶ This is the third report of part-time farming in the South. The other reports were "Combined Farming-Industrial Employment in the Cotton-Textile Subregion of Alabama, Georgia, and South Carolina," *Bulletin J-1*, Works Progress Administration, Washington, D.C., 1936; and "Employment in the Cotton-Textile Industry in Alabama, Georgia, and South Carolina," *Bulletin J-2*, Works Progress Administration, Washington, D.C., 1936. These bulletins are available for limited distribution only.

⁷ W. A. Anderson, "Rural Youth: Activities, Interests and Problems. I. Married Young Men and Women, 14 to 29 years of Age," *Bulletin No. 649*, Cornell University Agricultural Experiment Station, Ithaca, 1936. Pp. 53.

- H. L. Stewart, "Natural and Economic Factors Affecting Rural Rehabilitation Problems in Southwestern North Dakota (as typified by Hettinger County)," *Research Bulletin K-4*, Resettlement Administration, May, 1936. Pp. 39.
- E. D. Tetreau, "The Trend of Rural Relief in Arizona, June 30, 1935, through December 31, 1935," Social Research Division of the Works Progress Administration, Agricultural Experiment Station of the University of Arizona, Arizona Emergency Relief Administration, and Arizona State Board of Public Welfare, coöperating, April, 1936. Pp. 22.
- Olaf F. Larson, "With Rural Relief in Colorado, February-November, 1935," *Research Bulletin No. 1*, Colorado Agricultural Experiment Station and Rural Research Section, Research Division, Federal Works Progress Administration, Fort Collins, April, 1936. Pp. 28.
- "Statistical Data Regarding Farm Labor in Oregon," *Station Circular of Information No. 151*, Oregon Agricultural Experiment Station, in coöperation with Federal Emergency Relief Administration, Corvallis, May, 1936. Pp. 9.
- E. L. Kirkpatrick and Agnes M. Boynton, "Interests and Needs of the Rural Youth in Wood County, Wisconsin," *Special Circular*, Wisconsin Agricultural College Extension Service, Madison, January, 1936. Pp. 12.
- A. F. Wileden, "What Douglas County Young People Want and What They Are Doing About It," *Special Circular*, Wisconsin Agricultural College Extension Service, Madison, December, 1935. Pp. 12.
- "Recreation in South Dakota" (A Preliminary Report), South Dakota State Planning Board, Brookings, 1936. Pp. 184. (A listing and description of recreational facilities available in each county and in most municipalities of the state.)
- "The People of South Dakota" (A Preliminary Study of Population), South Dakota State Planning Board, Brookings, June, 1936. Tables VIII. Pp. 44.
- "Organization and Procedures of the Alabama Department of Public Welfare," *Bulletin L-1*, Works Progress Administration, Washington, D.C., July, 1936. Pp. 70.
- "Organization and Procedures of the Maryland Board of State Aid and Charities," *Bulletin L-2*, Works Progress Administration, Washington, D.C., 1936. Pp. 44.

Book Reviews

The Populist Revolt. By John D. Hicks. Minneapolis: University of Minnesota Press, 1931 (reissued 1936). Pp. xii, 473. \$4.00.

This excellent work by a professor of American history and dean of the College of Arts and Sciences at the University of Nebraska is a history of agrarianism in the United States between the Civil War and the end of the century. It deals chiefly with the activities, the background, and results of the farm movements known as the Farmers' Alliance and the People's Party. From the philosophical-historical and sociological points of view it is an introduction to modern farm relief in that it deals with the conditions, complaints, and activities of the American commercial farmers in a period almost similar, from the economic point of view, to that engaging these same American farmers since the World War. Its various chapters take up the frontier; the conditions in the South after the Civil War; the grievances which the farmers claimed on account of the rising value of the currency, the low prices for agricultural products, and the heavy mortgage indebtedness of the farmers; the development of the Farmers' Alliance and its activities, until it fused with other dissident elements including the free-silverites; the proposed subtreasury plan for farm relief which was, in many aspects, almost as happy a scheme as some more recently put into effect in the same regions; the birth, growth, and activities of the Populist Party; its fusion with the radical democrats into the free-silver party of the Nineties; the defeat of free-silver democracy in 1896; and the return of "prosperity" leading to the temporary dissolution of agrarianism of this nature.

Naturally a reviewer can say a number of things about a lengthy book as important as this, but a few seem of particular importance. The first concerns the historical accuracy of the work. The reviewer is not an historian but has had a considerable interest in this period and its writings. In his opinion the interpretation fits the ideas which he has formed of the period from other sources. He would disagree with the author on a number of interpretations, such as the wearing out of the lands of the West (p. vii), some of the analyses of southern agriculture (chap. ii), and the summary of the Populist contribution (chap. xv); on the other hand, he would commend the author particularly for pointing out that the "gifts" of the public domain to the railroads was essentially a method of distributing the land to farmers more quickly and at a low price through the railroads (but the author does not make as much of this as, perhaps, he should have, as shown by the first sentence beginning on p. 72), and especially for the careful picture of the almost unanimous condemnation of the subtreasury plan by politicians, as well as sensible farmers of that period (chap. vii).

The second problem is that of the importance of the history of this period for the agrarianists of today. All the reviewer can say is that in his opinion this book, especially, and other books treating of this same period would repay profound study, not only by the rural sociologist but the rural economist as well. One has to assume that most rural-minded intellectuals are fairly informed about American history. However, books similar to this one and dealing with this period are in the same class as the Bible used to be considered—one can't read them too often, or know them too well.

The subtreasury plan, which was "the farmer's tariff" proposed for the Nineties (a scheme of governmental warehouses, the issuance of currency on the warehouse certificates, governmental short-time credit for farmers at one per cent per annum up to 80 per cent of local current value of products stored, all as a farm substitute for the "manufacturer's" tariffs), figured extensively in the campaigns of 1890 and 1892. Since, in essence, this scheme is almost identical with modern agrarianism in the U. S. A. (the first draft did not provide for crop "control"), it is of interest to observe some of the reactions of that period. The arguments for it were almost identical with arguments for the "modern subtreasury plan" even to the "home market for home demand." On the other hand, Senator Vance of North Carolina, who introduced the bill, decided "that he could not support it." Even the severe defeat administered to the Republicans in 1890 by agrarian (subtreasury) support of the Democrats "failed to arouse Congress to action." The Senate Committee on Agriculture and Forestry "washed its hands of the whole matter." The *New York Times* (of that day) branded it as "one of the wildest and most fantastic projects ever seriously proposed by sober man." The newspapers called the agrarians "hayseed socialists" and projectors of "potato banks."

Some argued that the system might give the farmers an unreasonable power to demand high prices and thus seriously to injure the consumer; others wondered if the subtreasury might not operate in such a way as to be an actual detriment to the farmers (through increased foreign competition) (p. 197).

The House committee held that:

No good could come from making every citizen feel that from the time he plants his crop until it is harvested that to the government he is to look. . . . (p. 198).

It is pointed out that "it discriminated in favor of certain classes of farmers. . . ." ". . . was it not clearly unconstitutional? . . . there was no point to passing a law that would promptly be set aside by the Supreme Court." An editorial writer on a leading farm newspaper resigned because he found the dominant sentiment in the Alliance, on the subtreasury question, in conflict with his views. Finally, the major author of the measure (Macune) was forced to

resign from the Alliance because he "aided in the printing and distribution of documents designed to induce Alliamcemen to vote the Democratic ticket. . . ."

This chapter on the subtreasury plan is of especial interest, even in its application to philosophical theories of the immanent change in the character of a country with "advancing civilization." The last chapter, which deals with an appraisal of "The Populist Contribution," is of a different type. Essentially it gives a "Pollyanna" version of history; its main thought is that there is some good in everything—particularly in the Utopian demands of the drouth-ruined land speculators of the Nineties. The reviewer differs with the interpretations of this chapter.

Harvard University

CARLE C. ZIMMERMAN

County Library Service in the South: A Study of the Rosenwald County Library Demonstration. By Louis R. Wilson and Edward A. Wight. Chicago: University of Chicago Press, 1935. Pp. xv, 259. \$2.00.

In an attractive and significant setting, a five-year demonstration experiment of county library service in the South is here evaluated. This descriptive background may well serve as an approach to the study of almost any phase of what might be termed public culture in the South. The geographic, economic, social, educational, and cultural aspects are covered, and the frequent references to Dr. Odum's regional work assures us that the alluring approach is well based.

The project reported, sponsored by the Julius Rosenwald Fund and including 11 selected libraries, had two objectives—to stimulate interest in libraries throughout the South and to provide specific demonstrations of country-wide service to all the population, urban and rural, white and Negro.

The Graduate Library School of the University of Chicago sponsors this report which is much more than that term is likely to imply. Not only is it thoughtful and thorough but it makes an interesting evening's reading on its own. Comparisons that come to mind in that respect are *Rural Education* by Benson and Willard, built on the findings of the American Association for Adult Education, and *Hollow Folk* by Sherman and Henry, founded on the investigations of the Washington Child Research Center.

Combined with a lively appreciation of the value of this demonstration is a frank observation on the part of the authors that certain specified circumstances incident to the adoption of the plan hampered the collection of a body of data and the maintenance of operation records sufficient to provide for an adequate measurement of results. Certain other limitations are outlined. But granting these imperfections, the authors have proceeded to analyze and present their material, findings, conclusions, and recommendations in a way that will make this a volume of permanent value in the South and a practical guide for immediate or early action.

The dynamic spirit of the book is reflected in some of its definitions and statements of objectives. The public library is maintained by a democratic society in order that every man, woman, and child may have the means of self-education and recreational reading, the authors assert. It is one of many services. Considered alone, its meaning and significance are limited. It must be described and evaluated as one of a group of socialized, coöperative services deriving its objectives from, and adapting its program to, the general cultural environment of which it is a part. It is an active agent for so assembling accumulated knowledge that it may be applied to the solution of many of the pressing problems of society.

Space is not available to brief other stimulating and sometimes penetrating statements of aims and objectives, some of them prepared by librarians of the demonstration group. It is significant that the duty to serve all of the public regardless of race is stated again and again.

For most rural sociologists undoubtedly the general chapters will be most useful, together with those that report on the very limited reading of books, from all sources, and of periodicals among the people reached by the demonstration libraries. The philosophy as well as the methods and results of coöperation between the public library and the school is given special attention.

For those who wish to go further into the subject the book gives a wealth of well-digested detail, aided by many tables, charts, and maps, a bibliography, an index, and appropriate material in the appendix. The libraries selected for the demonstration were in North and South Carolina, Tennessee, Alabama, Mississippi, Louisiana, and Texas. Details of the Rosenwald Fund plan are outlined. Careful consideration is given to the nature of the libraries in the demonstration, their internal administration, and the use of the libraries as measured by accepted criteria and statistics. All of this work is illumined by the authors' knowledge of the subject and the region, and by the possession of a well-realized philosophy that fills in and interprets without trespassing upon the territory of reported findings. If the arrangement of some of the material and discussion brings moments of wonder, they are followed by the conviction that the authors have considered the alternatives and decided advisedly.

Because of the phenomenal development of public libraries in California and the prevalence and success of the county library in that state, developments there are sketched, as are developments in the Middle West, in New Jersey, and in England. This widens the base upon which the recommendations are built. These recommendations are divided into three groups—those relating to the coöperation of interested agencies throughout the South, those most applicable to the programs of individual Southern States, and those relating to the administration of individual libraries.

Resettlement Administration

CAROLINE B. SHERMAN

Population Problems. Second Edition. By Warren S. Thompson. New York and London: McGraw-Hill Book Co., 1935. Pp. xi, 500.

This revision of Professor Thompson's valuable text on population problems differs little in scope from the first edition—the chapters, while in different order, are practically identical in title. Data from the U. S. Census of 1930 replace those of 1920 used in the previous edition, and the results of many recent studies are utilized; i.e., the discussion of the future growth of the population of the United States centers around the recent estimates of the Scripps Foundation for Research in Population Problems. The significance of the differential reproduction rates of various nations is discussed with reference to the specific international difficulties of the present.

The work in general is characterized by its calmness and lack of any feeling of alarm concerning the coming of a stationary or decreasing population, the differential birth-rates of social classes, or the immediate necessity for positive eugenic action. The main stress is placed on the significance of the distribution of population, both within and between nations. The author argues for the reorganization of our social and economic system so that only a small proportion of the total population will live in large cities. He questions the economic, social, and cultural superiority of the modern large city, and believes that it jeopardizes man's physical welfare. "The reorganization of the big city is absolutely essential if our mechanical civilization is to prove more than a very brief episode in the life of man." With increasing urbanization, the farms cannot continue to send migrants to compensate for the birth deficit to the cities. The urban failure to reproduce does not prove hereditary decadence, but arises as the consequence of personal reactions to the social and economic system. The diffusion of population in multi-nucleated centers to replace the modern mono-nucleated city is advocated as one of the greatest needs of modern industrial civilization.

Population Association of America

IRENE BARNES TAEUBER

Sweden: The Middle Way. By Marquis W. Childs. New Haven: The Yale University Press, 1936. Pp. 165.

Sweden: The Middle Way is a book with a purpose. The purpose is not merely to give information, but to unfold information that is pertinent and timely to America. The desire of the author to transmit to our struggling nation a message is not patent; the data contained in this little volume evidence their own value. The recounting of successful consumer and producer coöperation and state regulation of big business conveys its own message. Attesting this is the fact that the volume, though first appearing in January, 1936, is now in its fourth printing.

This little Scandinavian country, lying north of the incessant cataclysmic struggles of its southern neighbors, adopted philosophies of living and methods

of operation in its economic organizations that lie midway between the extreme form of communism, as practiced in Russia, and the opposite capitalistic organization that prevails among most of the nations of Europe and America. In economic, social, and governmental operations the people of this northern country have shown themselves pragmatists; they have formulated programs that worked. They have been occupied with the well-being of their own social order rather than with the traditions of the past or the theories of socialization or capitalism. Thus, when it became necessary to abolish private profits of the wholesale tobacco dealers to secure funds for the old-age pension system, no cry against government entering business prevented the initiation of the program.

The people have come to control business through the establishment of their coöperatives, in some instances, and regulated business by governmental methods, in other cases. The nation is capitalistic, but the trend toward monopoly, so manifest in other nations, has been checked. The prevailing economy adopted is the greatest good for the greatest number.

The Swedes, in initiating their coöperatives, "were primarily interested . . . in lower prices and higher quality . . . and, later, production for use instead of profit." The beginning of the coöperative movement was in 1899 with the formation of the Coöperative Union, made up of small consumer societies confined largely to industrial areas. The Union is now owned by 635 member societies. The first struggle of the Coöperative Union with private business was with the cartel "that dominated the trade in margarine." The Union bought a margarine factory, whereupon the cartel lowered its price. By advertisement the Union won the consumers, because it was obvious that the cartel dropped its prices because of the competition. The struggle continued for more than two years, but by 1911 "the margarine cartel was broken up and prices went to a level which the coöperators considered justifiable from the point of view of the cost of manufacture and distribution." Other struggles and successes followed, including the victory over the milling cartel.

The consumers' coöperatives that are affiliated with the Coöperative Union drew their membership from all classes of society, a prince of the royal blood becoming a member of the Stockholm Society, which in 1905 opened its first store. Over one-third of the households of the country are in coöperatives. Small landowners and farmers followed other groups in forming coöperative societies and by 1925 approximately 19 per cent of all coöperators were farmers.

These coöperative societies have succeeded; in the Stockholm area alone they operate 380 shops. While they have saved their own members and their customers money, they have also become an educational force giving courses in economics and coöperation. Moreover, the *esprit de corps* of the coöperative movement has been preserved by the fact that officers have drawn salaries below those that prevail in private business. Also, coöperation for producers as well as consumers is growing, especially among farmers. The Milk Central provides

milk for the Stockholm consuming public, an important factor in the city's high milk consumption.

Details (every chapter sparkles with them) cannot be given of the struggle for cheaper electric light bulbs, the ramifications extending to America, the beating down of prices on goloshes, the success in manufacturing vegetable oils and cash registers. But a statement is necessary on low-cost housing. Private capital, as in America, failed to produce low-cost houses for families of low income. Coöperators have built low-cost houses and, under the plan for filling this need, have some rights in saying what their homes are to be. To accomplish this work a national coöperative organization, The Tenants' Savings Bank and Building Society, was formed in 1922. The result has been that about \$90,000,000 have "been spent on low-cost housing by the state, its political subdivisions and the coöperatives themselves."

The state may enter into business or work with business. The state owns and operates its share of the forests and prevents monopoly on the part of private individuals. The state has planned its own power system and in that it assists and competes with private power producers. This practice extends to public ownership within the cities. Moreover, semiprivate, semipublic methods have been formulated and legalized by which the state controls the liquor and tobacco traffic. Profits are limited to individuals and, as a consequence, a large revenue accrues to the state.

Sweden has a king. "He is modest, thrifty, decent, kindly, all the qualities which the Swedes admire." He is the personification of the state, though the state is a democracy. Thus, as labor, and concomitantly the people, came into increasing political power by means of the educational method, the king more and more relinquished his authority.

But Sweden is not without its Morgan. Sweden's financier is Knut Wallenberg. He is the personification of all the people do not want, yet he has served his country well. Even in donating to the Town Hall of Stockholm he afforded an opportunity for the people to express themselves; the structure is the crystallization of the folkways and arts of the people.

Sweden has found a middle way. Perhaps it has *pointed* the way out for sick capitalistic systems which in many countries seem to be in their dotage struggles.

Works Progress Administration

BRUCE L. MELVIN

Cotton and the A.A.A. By Henry I. Richards. Washington, D.C.: The Brookings Institution, 1936. Pp. xv, 384. \$2.50.

This study takes cotton under the A.A.A. and, after a careful examination of the background of the movement, its working, and its results, appraises the problem in relation to foreign markets, effect on farm income, potential gains and losses, and feasibility of continued control. The first part of the book gives

the background of the movement, in terms of the statistics of the cotton-farming industry, and the objectives which the government had in view in setting up control of the situation. Following chapters deal with the operations of the program from the plow-up campaign of 1933 through to the Supreme Court decision early in 1936, in which many features of the earlier organization were declared unconstitutional. The administrative organization, promotional campaigns, the contract sign-up, checking compliance, landlord-tenant relations, the development of the Bankhead Act, compulsory compliance features, governmental purchase of cotton and loans, and the financing of the program are described in minute detail.

According to the author, American cotton farmers received 276 million dollars more for the crops of 1933-36 than they would have without the program. Added to this amount are 418 millions of benefit payments, giving some of the cotton farmers, at least, a temporary gain of 695 million dollars more for the three years than they probably would have had without the A.A.A. However, he does not deduct the higher prices for cotton goods or other products which increased in value on account of the A.A.A. either for the cotton-growing participants, the cotton-growing non-participants, or the other American farmers. During the period, estimated American cotton production was reduced by 10.5 million bales, and foreign cotton production was increased 4.4 million bales, leaving a net reduction in the size of the world crops of 6.1 million bales. World consumption decreased probably two million bales in 1933-34, which was the net result of a decline in consumption of American cotton of three million bales and an increase in the consumption of that foreign countries of one million bales. In 1934-35 the world consumption of American cotton was reduced 3.8 million bales and that of foreign cotton increased 1.8 million bales, leaving the total world consumption reduced two million bales. American governmental holdings increased from 2.5 to 6.0 million bales. Foreign production was stimulated chiefly on lands formerly used for cotton. In 1936, with a production of 15 million bales in the United States, American farmers will probably lose 150 million dollars of their gains due to increased competition alone. "In general foreign cotton production is increased more easily than it is reduced" (p. 300). "The increase [of 695 millions of dollars] in a very real sense, is a loan which must be paid off in the future, probably with interest . . ." (p. 293). The consumption of cotton in America was reduced 17 per cent, with consequent unemployment and hardships to the non-farming cotton-industry employees (in addition to higher prices which they had to pay for all farm products raised by the A.A.A. controls including cotton goods). Further, a decreased production of cotton by 26 per cent meant much less work and more unemployment for pickers, choppers, and temporary hired labor on farms. Farm income was temporarily stabilized, and farmers with poor crops had their incomes greatly increased. About one-half of the restricted acreage

was used for food and feed crops. Farmers did not work as hard. Some of the idle land probably became infested with grass and weeds. But the better farmers (those who had already accepted a diversified farming system) were benefited least by the A.A.A. program. Farmers who exaggerated their claims as to acreage in cotton during the base period (and who were not caught) benefited more than those who did not. Areas of expanding cotton acreage suffered relatively in favor of areas of decreasing cotton trends. If the program is continued the tenant will lose most. ". . . tenants would tend to have their incomes reduced . . . even though they were not displaced by landlords" (p. 314). "The government might be able to check such displacement of tenants but could probably not prevent it." ". . . landlords would shift from croppers or tenants to hired labor for producing cotton . . . such a program creates a surplus of tenants—not of landlords" (p. 315). The income of tenants ". . . would probably be decreased over a long-time period." ". . . the long-time effect of reducing the supply of cotton is to reduce the value of it, (while) the immediate or short-time effect is to increase the value of it" (pp. 319, 304).

A considerable part of the rise in cotton prices since 1932 is attributed to dollar devaluation (p. 280), but the author justifiably differs with A. B. Cox that all the increase was due to dollar devaluation (p. 281). The inability of the foreigner to buy cotton from America is different from the more general problem of tariff on dollar exchange because there is no maladjustment in the distribution of cotton acreage in the world (p. 268) and because "there are few restrictions on imports of cotton into foreign countries" (p. 269), as contrasted with other exports to foreign countries. "High international trade barriers on products other than cotton consequently tend to increase the comparative advantage of producing cotton in the United States for export as compared with other products" (p. 269). "Imports of merchandise and gold, the principal source of dollar exchange aside from credit, were 82 per cent larger in 1934-35 than in 1932-33" (p. 267). All merchandise exports from the U. S. increased 44 per cent in value during that period, but unmanufactured cotton declined from 24 per cent of all exports in 1932-33 to 16 per cent in 1934-35.

Many other interesting conclusions are to be found in this book. The author does not take up in any detail the relative concentration of gains in the hands of the well-to-do as contrasted with the poor other than those cited above. Neither does he give a philosophical analysis of what constitutes a "normal" price for cotton as contrasted with the 1910-1914 average-relative-purchasing-power price. The author suggests that, outside of temporary gains, the program created more maladjustments in the cotton industry than it cured (if any) and "has not been able to solve the basic problems involved in government control over the production of cotton. . . ." The author has a "plan" of his own but his chief arguments for it are that it would do almost what *laissez faire* will do anyway.

No student of American agriculture should be without this book. It deserves profound study.

Harvard University

CARLE C. ZIMMERMAN

Chile: Land and Society. By George McCutcheon McBride. New York: American Geographical Society, Research Series No. 19, 1936. Pp. xxii, 408.

It would be regrettable in the extreme if sociologists should get the impression from the title of this volume that it is merely a travel book, for such is distinctly not the case. It is a scholarly analysis of the Chilean agrarian problem and of the impact of the systems of land tenure upon other phases of social organization. Those who are acquainted with the author's previous work entitled *Land Systems of Mexico* will welcome the present one as an extension of that approach into another area.

The book is divided into three parts. The first of these deals with "Central Chile: The Land of the Hacienda," and constitutes more than half of the book. This is justified because of the fact that more than three-fourths of the population live in Central Chile; practically all of the farms in the country are located here; and the hacienda is the predominating type of farm. In 1925, for example, 89 per cent of all the land area of rural properties in this region was in the haciendas. Excellent chapters occur on each of the following phases of the hacienda: Types of Haciendas, The Origins of the Chilean Hacienda, Haciendas Today, Labor on Haciendas, The Influence of the Hacienda, and Subdividing the Hacienda.

Part II contains five chapters grouped under the heading "Southern Chile: A Frontier Region." In this section, chapters are found dealing with several distinct phases of the land problem. First is the question of land titles which is very acute in this area. Second is a discussion of the lands held collectively by the Araucanian Indians, who were a soil-tilling people. Their land was held by the kinship group, and each family was allowed whatever it needed that was not already in use. The public range was used in common. These collective holdings have gradually been taken in severalty until there are only a few remaining. The third phase of the land problem in this area is that of colonization in the forested areas of the extreme southern region.

Part III contains a single chapter entitled Northern Chile: An Arid Region with Scattered Settlements.

The general thesis of the book is that the hacienda system of land tenure has been the influential factor in molding the social and economic structure of the area; that the hacienda came into being as an instrument of conquest; that it has now outlived its usefulness and must give way either voluntarily or by means of revolution to some other system of land tenure. The conquered are now of the same blood as the conquerors and caste is based on economic and social

position alone, contrary to conditions existing in most other republics of Spanish America. "It would seem that Chile can avoid what Mexico suffered and the fate of Russia only if her landowners are wise enough to help promote a modification of the present agrarian society."

Thus the landowners are facing a serious dilemma. During the next few years Chile should provide interesting data on social change.

Some might be inclined to think that the presentation would have been somewhat more systematic had the subdivisions been grouped according to regions. From a geographical standpoint, however, the present approach is justified and the presence of only one small chapter entitled the "Small Farmer: A Third Estate," thrown into the midst of an entire section on the Hacienda serves merely to portray the strangling hold which the Hacienda system has on all other systems of land tenure. The book will undoubtedly stand as a landmark for the understanding of rural social organization in Chile.

Connecticut State College

N. L. WHETTEN

Consumer Coöperation in America: Democracy's Way Out. By Bertram B. Fowler. New York: The Vanguard Press, 1936. Pp. viii, 305.

One of the most significant social and economic developments which has occurred in the United States in recent years has been growth of coöperation in many different fields. A considerable volume of literature has appeared dealing with agricultural coöperatives, particularly marketing associations, but much less has been written about consumer coöperation in the United States. In the book under review an attempt is made to describe the present status and recent history of consumer coöperatives in the United States. However, relatively little quantitative data concerning the movement is included. For the most part the book consists of narrative material describing a limited number of consumer coöperatives in different parts of the country. Despite the lack of exact data, it appears from the material presented that the number of associations and volume of business which they transact have been growing rapidly in the United States. The significance of this growth is increased by the fact that most of it has been achieved without governmental aid, such as has been extended to the agricultural coöperatives.

The growth of consumer coöperation in the United States is regarded by the author as being largely the result of the economic distress of the people who organized the coöperatives. The purpose of these organizations is to secure for their members the profits formerly accruing to the privately owned businesses which they patronized. Thus the coöperatives are regarded as essentially economic organizations whose final purpose is to achieve a more equitable distribution of the country's income among consumers, who, of course, include everybody. Economic reform by means of coöperation is regarded as the only feasible way

out of the present economic difficulties in the United States. Political action, in the author's opinion, is quite ineffective in dealing with the economic distress of the common people and is of comparatively little use even in aiding the coöperative movement. The coöperative marketing activities of farmers are regarded as being all right, so far as they go, but as having no possibilities of developing to the point where they will be effective in improving to any considerable extent the economic circumstances of farmers.

The field which consumer coöperatives should, and according to the prediction of the author will, occupy in the future is a very broad one. All business should be carried on by consumer coöperatives, except for the "private ownership of 'use' property whether that property be the home and equipment of the consumer or the property of the individual for individual production" and "public coöperative ownership of natural resources, national wealth and power production, with distribution of power through consumer coöperatives" (p. 168). If consumer coöperatives should grow until they occupy the place predicted for them by the author, the present industrial and distributive system would necessarily disappear. There seems to be little in the past history or present position of consumer coöperatives in this, or other countries, to indicate that this will actually occur. It is much more probable that the coöperatives and the privately owned businesses will both remain as part of our economic system and will compete with each other for business.

The book is hardly to be regarded as a scientific discussion of consumers' coöperation; rather it constitutes a bit of propaganda written by a partisan of the movement. Consumers' coöperation is made to appear as if it were the only possible answer to practically all of the present social and economic problems of the country. Such a presentation may do some good in calling attention to the potential possibilities of the movement, but it may also do some harm by overselling the program to certain groups. Despite the importance of the movement in many different countries, there appears to be no logical basis for considering it a cure-all for the economic and social problems of the present day. Other movements, such as the coöperative marketing of farm products and governmental regulation of monopolistic practices, which are largely ignored or belittled by the author, may be very important in solving such problems.

Louisiana State University

ROY A. BALLINGER

The Courts and Public School Property. By Harold H. Punke. Chicago: University of Chicago Press, 1936. Pp. 311. \$3.00.

This book contains the collection and brief citation of approximately 1,000 court cases dealing with the acquisition, use, and disposal of school property. These cases are drawn from various states in the Union depending upon their relevance to the question under consideration. They are carefully classified,

according to subject headings, in a total of 10 chapters. The author has attempted to work out the principles of common law which apply to the practical problems of public school administration; hence, the reader does not find extended discussion of the basic assumptions contained in the law or the implications which they have from the standpoint of community development. Nevertheless, the main purpose of the book is realized, and the contents should be of interest to school officials and others directly concerned with problems of school administration.

Michigan State College

C. R. HOFFER

Following the Prairie Frontier. By Seth K. Humphrey. Minneapolis: University of Minnesota Press, 1931. Pp. 265. \$2.50.

Persons interested in the problems of land settlement and especially those now grappling with the current problems of the Plains States will find much valuable information in this small volume. Brief, sparkling anecdotes acquaint the reader with the author's experiences in "following the prairie frontier." "Following" in this case means coming along at a distance; the author relates his experiences as an agent for a land-mortgage company; after the westward surge had passed on to newer fields, or the settlers had "gone back East to the wife's folks," he observed the wreckage that was left. Much of the material supports the old saying that "every homestead breaks three families." It is his picture of conditions as they were in the wake of the settlement that is so valuable, for many of the later difficulties seem to have been presaged by the early events described in the work.

Among the 20 short chapters in the volume, those entitled "Frontier Life," "Work, Play, and Travel," "The Dakota Frontier," "Prairie Driving," and "Prairie Life" will be found the most useful for the rural sociologist. In them are much of the detail necessary to develop vivid pictures out of the haze which frequently represents our information about early life on the prairies. Those familiar with the rush to free lands in Colorado, New Mexico, and other Western States that followed the World War will be struck with the many parallels in the two periods.

Louisiana State University

T. LYNN SMITH

News Notes

University of Arizona:—E. D. Tetreau, rural sociologist on the Agricultural Experiment Station staff, has been appointed professor of rural sociology. A course in Principles of Rural Sociology will be offered during the second semester of the coming academic year.

Mr. Clifford F. Thomallo and Mr. M. Foss C. Smith have been appointed as research aides under the Resettlement Administration. With the assistance of 11 enumerators supplied by Arizona WPA District No. 3, they are filling schedules for the "Survey of Rural Population Mobility and Agricultural Labor." Approximately 3,000 household schedules and schedules for all farms in the sample areas will be filled.

The final results of rural relief surveys are being tabulated and will be prepared for publication during the summer and early fall. A "Spot Survey of 60 Families Referred to the Resettlement Administration by Pinal County Board of Public Welfare" was completed during early June and the manuscript was submitted to administrative officers for their use and approval.

Connecticut State College:—Professor I. G. Davis has succeeded H. R. Tolley as chairman of the Advisory Committee on Economic and Social Research in Agriculture of the Social Science Research Council. This committee held its formal spring meeting June 5 and 6 at the Brookings Institution Committee Room in Washington, D. C.

N. L. Whetten has worked with the Rural Research Unit of the Works Progress Administration during the summer months. He is collaborating with C. C. Zimmerman of Harvard University on a monograph, *The Rural Family on Relief*.

Drew Theological Seminary:—Professor Ralph A. Felton, associate professor of rural sociology of Drew Theological Seminary, Madison, New Jersey, gave courses during the summer in the Near East School of Theology, Beirut, Syria. During the school year 1936-1937, he will be visiting professor at the Nanking Theological Seminary, Nanking, China.

Harvard University:—Dr. Antonín Obrdlík, Rockefeller fellow from Czechoslovakia, is participating as an observer in the Community Studies under the direction of Professor C. C. Zimmerman at Harvard.

Professor C. C. Zimmerman has been appointed chairman of the Board of Tutors in the division of sociology for next year. Dr. Robert K. Merton is

promoted to secretary of the Board of Tutors, succeeding Dr. Carl S. Joslyn, who has been appointed associate professor of sociology at the University of Maryland.

Professor Zimmerman's new work on *Consumption and Standards of Living* came from the presses of D. Van Nostrand in June. This work is dedicated to John D. Black, professor of economics at Harvard University.

The division of sociology at Harvard announces that W. I. Thomas will be in residence for the academic year 1936-1937, offering a course on Group-Habit Systems for graduates and undergraduates, and also a general Seminar for graduates.

Milbank Memorial Fund:—Edgar Sydenstricker, scientific director of the Milbank Memorial Fund, 40 Wall Street, New York, and consultant statistician of the United States Public Health Service, died of a cerebral hemorrhage on March 19, 1936.

Mr. Sydenstricker was born July 15, 1881, in China, of missionary parents, Rev. Dr. Absalom and Caroline Stulting Sydenstricker, both of West Virginia. He came to the United States in 1896. He was graduated from Washington and Lee University, Lexington, Virginia, and received the degree of M.A. in 1902 from that university. He pursued graduate work at the University of Chicago and The Johns Hopkins University. After leaving college he was principal of the high school at Onancock, Virginia, for three years. In 1905 he became editor of the *Daily Advance*, Lynchburg, Virginia, and soon thereafter also became a special writer for various newspapers and magazines.

In 1907-1908 he was a fellow in political economy in the University of Chicago. Trained as an economist, his early studies, from 1908 to 1915, were made for the United States Immigration Commission and the United States Commission on Industrial Relations. As a special investigator, he made extensive surveys of wages, working conditions, and standards of living of industrial workers, especially in industries employing large numbers of foreign-born.

In 1915 he was appointed statistician in the United States Public Health Service to assist Dr. B. S. Warren. Jointly they investigated the relation of economic status to the health of garment workers in New York City and made a factual study of sickness insurance as organized and administered in European countries. Mr. Sydenstricker continued with the United States Public Health Service until 1928, becoming chief statistician and head of the Office of Statistical Investigations, which was organized and developed under his leadership as a permanent part of the Service. As chief of this office, he not only conducted his own statistical studies but also guided and assisted studies conducted by other research units of the Public Health Service, including studies in industrial hygiene, child hygiene, and venereal diseases.

For one year, 1923, Mr. Sydenstricker had a leave of absence from the Public

Health Service to organize the Epidemiological Service of the Health Organization of the League of Nations. He established a service there which has continued ever since under Dr. F. G. Boudreau.

From 1916 to 1920 he collaborated with Dr. Joseph Goldberger of the United States Public Health Service on epidemiological studies of pellagra in the South and was in charge of the statistical studies on the relation of dietary, economic, and sanitary factors to the prevalence of this disease in cotton-mill villages. These inquiries, which contributed greatly to an understanding of the conditions under which pellagra occurs in these villages, are models in the use of the survey and statistical method in social and economic studies.

In 1925 he became research consultant to the Milbank Memorial Fund. In 1928 he joined the staff as director of research and became the administrative head of this foundation in April, 1935, with the title of scientific director. He continued an active contact with the United States Public Health Service as consultant.

In 1934-35 he was associated with President Roosevelt's Committee on Economic Security and directed its studies on "Risks to Economic Security Arising Out of Ill Health." Largely as a result of his work with this Committee, a plan for an expanded federal program of public health and disease prevention was developed.

He was a fellow of the American Association for the Advancement of Science, the American Public Health Association, the American Statistical Association, the New York Academy of Medicine, and the Royal Statistical Society (Great Britain), and a member of the American Council of the Institute of Pacific Relations, the Academy of Political and Social Science, Council of Foreign Relations, American Epidemiological Society, the International Institute of Statistics, the National Research Council, and the Social Science Research Council. His fraternities were: Kappa Sigma, Phi Beta Kappa, and Delta Omega. He was a member of the Cosmos Club, Washington.

Princeton University:—Dr. Frank W. Notestein has been appointed as lecturer in the School of Public and International Affairs, to initiate teaching and research work in the field of population problems this fall. Dr. Notestein will be joined by Mr. Henry S. Shryock, Jr., as research assistant, and Mr. John D. Durand, who has been awarded a graduate fellowship by the Milbank Memorial Fund.

Dr. Notestein comes to Princeton from the research staff of the Milbank Memorial Fund where he has been in charge of the research work in population problems for a number of years.

Mr. Shryock is a graduate student in the department of sociology of the University of Wisconsin. During the past year he has been engaged in research

work at the Bureau of the Census on a predoctoral fellowship awarded by the Social Science Research Council.

Beginning January 1, 1937, the Princeton group will assume editorial responsibility for *Population Literature*, the bibliography of the Population Association of America, under the joint sponsorship of the university and the Association. Dr. Irene Barnes Taeuber will continue as one of the editors, in charge of bibliographical work, which will be done in the Library of Congress.

Sociological Research Association:—A group of sociologists representing all the varied interests of the subject and each one a member of the American Sociological Society met at the Hotel Morrison in Chicago on May 9, 1936, and organized the Sociological Research Association.

Membership in this association is by invitation only, and a limit of 100 members is set. To quote from the constitution: "Eligibility for membership in the association shall be restricted to persons possessing the Ph.D. or its equivalent, who have made a significant contribution to sociological research other than in a doctoral dissertation, and who are maintaining an active interest in the advancement of sociological knowledge."

The governing body is an executive committee of five. This committee includes the president and secretary-treasurer. Membership on this committee is for a term of five years. The newly-elected executive committee consists of F. Stuart Chapin, Donald Young, Robert M. MacIver, Stuart A. Rice, and E. B. Reuter. The order of presidential succession will be from the first named to the last named and thence to the senior member of the committee each year.

The object of the association is the advancement of the science of sociology.

Texas A. and M. College:—C. Horace Hamilton has entered into his duties as economist in rural life problems in the division of farm and ranch economics at the Texas Agricultural Experiment Station.

Utah State College:—On July 1, Lowry Nelson assumed his duties as director of the Utah Agricultural Experiment Station.

Washington, D. C.:—Carl C. Taylor has given up the administrative duties of his position as assistant administrator in the Resettlement Administration. He will give full time to directing the activities of the Division of Farm Population and Rural Life in the United States Department of Agriculture and the Division of Social Research in the Resettlement Administration.

John Holt has resigned from his position in the Division of Farm Population and Rural Life and has accepted a position as professor of sociology at the College of William and Mary.

